

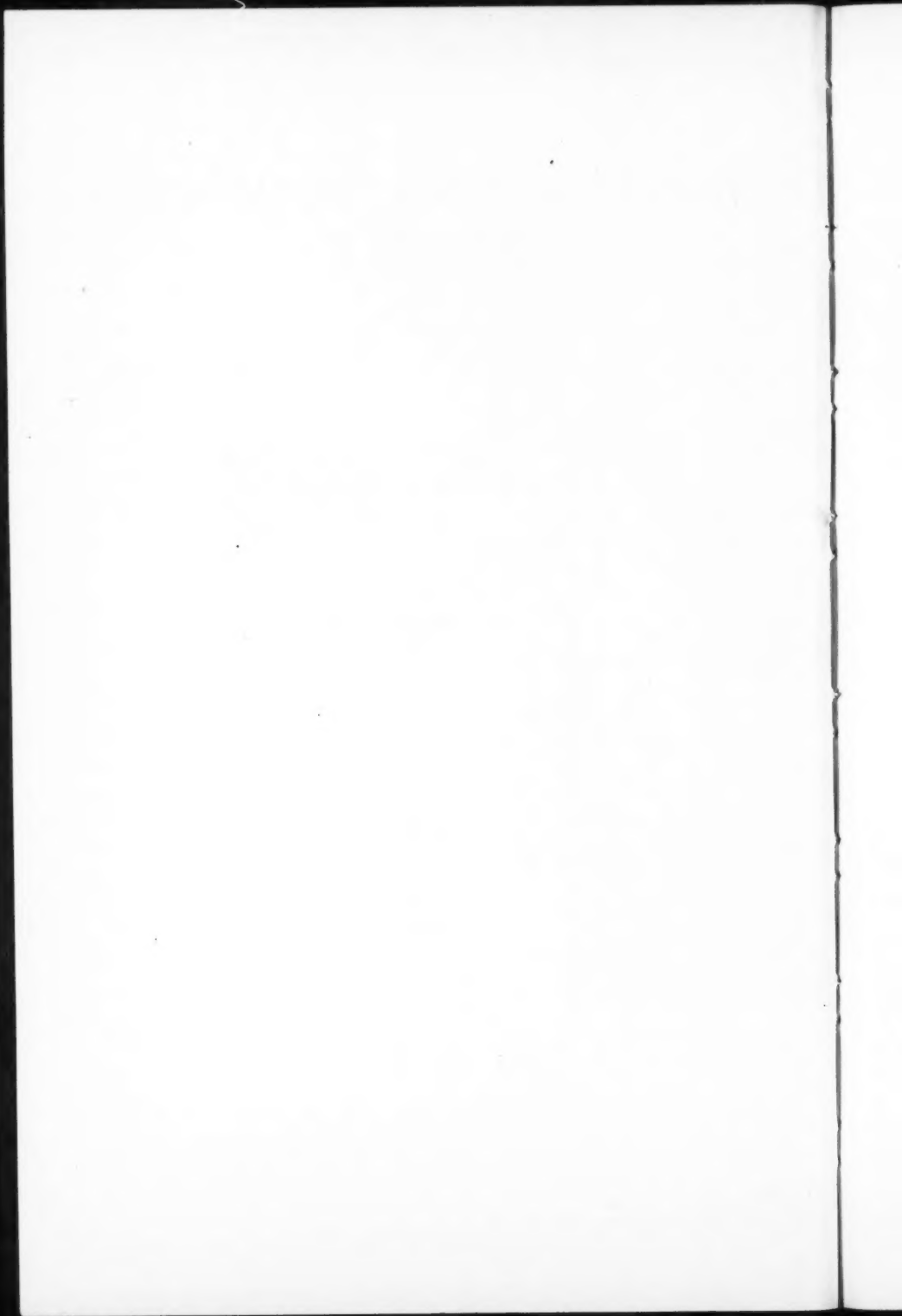
SOCIAL AND ECONOMIC STUDIES

Editor: H. D. HUGGINS

VOL. 2, NO. 1

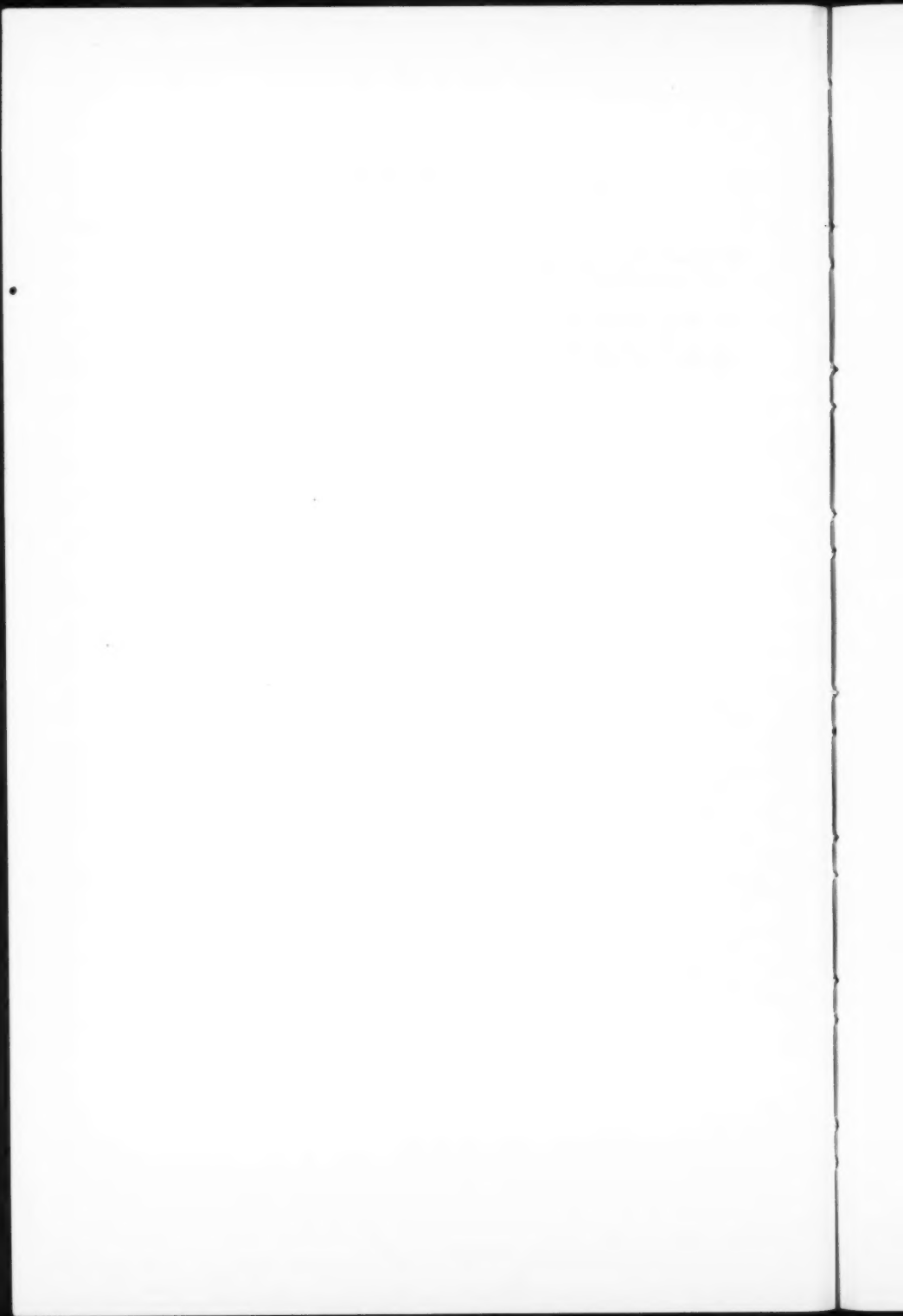
SEPTEMBER, 1953

**INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH
UNIVERSITY COLLEGE OF THE WEST INDIES, JAMAICA, B.W.I.**



CONTENTS

	Page
Industrial Training Methods and Techniques	Ella Campbell 5 •
"The Burning Fountain whence it came" (A system of beliefs of the Carib- speaking Akawaio of British Gulana)	Audrey Butt 102



INDUSTRIAL TRAINING METHODS AND TECHNIQUES

(A Survey based upon the Experiences of Twenty-five Industrial Establishments in Kingston, Jamaica.)

By

ELLA CAMPBELL

CONTENTS

	Page
I. INTRODUCTION	5
II. AN APPROACH TO EMPLOYMENT PROCEDURE	17
III. THE TWENTY-FIVE FACTORIES STUDIED	25
IV. THE CASE FOR PLANNED EMPLOYMENT PROCEDURES	69
V. SUMMARY AND CONCLUSIONS	85
BIBLIOGRAPHY	89
ACKNOWLEDGEMENTS	91
APPENDIX	91

I

INTRODUCTION

BACKGROUND OF THE STUDY

The demand for higher living standards throughout the world, and particularly for the populations of under-developed territories, has produced much discussion and led to research and programmes of development of various kinds. In the Caribbean area, it has found expression in such bodies as the Caribbean Commission, the Colonial Development and Welfare organization and the Colonial Development Corporation.

The Mission from the International Bank for Reconstruction and Development, which was invited by the Government of Jamaica to make an independent and objective study of the development requirements of Jamaica, re-emphasises in its report (16) the need to increase the productive activities of the people. The report particularly stresses the need for training to improve productivity in industry. Although it stresses the predominant importance of agricultural development it also contains a plan for industrialization. This implies the establishment of new productive enterprises outside agriculture, as well as a conversion of certain sectors of the economy from a domestic to a factory method of production; and it also involves plans for mechanization and the intensification of established industrial processes.

In the adaptation and conversion of available manpower to in-

dustrial employment, the training of a labour force, recruited from a population which is without the traditional discipline of industrial conditions, seems a fundamental problem. For future planning of industrial programmes, the observation and study of customs and practices in industrial management are of importance, and information on such subjects is scarce in the area. Knowledge of the established patterns in the management of personnel is a pre-requisite for the development of effective techniques and methods in industrial management, a development which should keep pace with the introduction of modern Western technology. It was the object of this study to observe the techniques and methods which have been developed and which are in practice in industries here. These observations are reported chiefly in Chapters III and IV of this paper.

In view of the paramount importance of general environmental factors in the assessing of training techniques it is proposed to comment in this introductory chapter on some of the social and economic forces which impinge not only on the individual but also on the organizations under consideration in this study. Training is not only a building upon the basic educational background of Jamaicans, but is essentially an extension of the individual's social environment. In order to be effective, training, with the other important branches of employment policy, must be realistic and must fit into the patterns of Jamaican society. An appreciation of the economic and social factors shaping these patterns is of the utmost importance.

Traditionally the Jamaican economy has been almost exclusively agricultural. The production of specialized export crops, of which sugar cane, bananas and coconuts have been the most important, has been organized mainly on the estate or plantation system, and it is to be expected that this system, with its characteristic conditions of employment and particular forms of social relationships, will exert a wide influence on the patterns developed in the smaller or newer industries. Even today the life of most Jamaicans is rurally orientated; in 1949, a third of all wage earners (313,400) were in agriculture, and only 8% were engaged in manufacture. A typical feature of the rural wage earner is that he is not wholly dependent on his wage. Traditionally his means of livelihood comes both from his wages and from a plot of land which he cultivates on his own account.

A large number of holdings (60,000) are too small (less than 25 acres) to support a family (8). The income from the small holding supplements the wages or *vice versa*. In the urban situation the incomes from wages are often supplemented by earnings from side-line jobs. This may illustrate how far the worker has retained or adapted his customs in the relatively new situation and this probably has an

important bearing on industrial discipline and completion of skills whilst carrying out several occupations.

Diversification of economic activities, as envisaged by plans of development, implies changes in working conditions which have far-reaching influences on society at large. Changes in social behaviour patterns, re-orientation of social norms, changes in aspirations are produced by economic changes and cause tensions and frictions in the society. The current introduction of Western technology into the processes of production necessitates a change in social norms and in aspirations. Unless these changes are made there may not be provided the motivation necessary to the acquisition of new skills by the workers. The difficulties following the abolition of slavery, as described by C. V. D. Hadley (12) illustrate the results of inadequate or inappropriate incentives.

The process of change in the country's economy has been accentuated in recent years. The West India Royal Commission (43) of 1938-39 reported a total of seven industries, while in 1951 there were 20 Pioneer Industries declared under the Pioneer Industries (Encouragement) Law of 1949, in addition to many other enterprises not receiving the benefits of that law. The labour force of manufacturing industry employed in factories and workshops, which was 8,840 in 1939, had by 1947 already risen to 20,123; the number of men had doubled (from 7,356 to 14,647), that of women had increased almost fourfold (from 1,484 to 5,476)

But while industrial employment was thus of increasing significance in the period 1939-1951, total increase in number of wage-earners exceeded 50,000, rising from 266,300 in 1939 to 319,400 in 1950, while the increase in population engaged in or seeking gainful occupation must have been very high indeed, since a population of little more than 1,160,000 in 1939 had reached 1,430,000 in 1950, an increase of well over 20,000 a year. This increase is due almost entirely to excess of births over deaths: the birth rate is high, and the 1943 Census showed that 36% of the population was under 15 years of age. There were 143,137 unemployed persons in 1943, many thousands of whom had never in fact been employed. There were also 150,000 own-account workers; these readily become wage-earners and may switch back easily to working for themselves, a fact which is connected with the great volume of underemployment.

These statistical facts have an important bearing on the problem of vocational training. But they represent only one aspect of a general environmental difficulty in establishing a disciplined foundation for industrial training. The great majority of the labour force in town and country is conditioned by circumstances altogether

different from those which mould the expectations and aspirations of the labour force in most industrial countries. Social economic and cultural forces which have shaped and are shaping family patterns in the West Indies have caused a heterogeneous type of family organization; and the Royal Commission of 1938 stressed the consequent dangers to social stability (43, Chapt. XI para. 21 and 23). Also T. S. Simey gives a classification of family types by Mr. Lewis Davidson, based on investigations in 1943-44 (34, pp. 82-83). Mr. Davidson's analysis is as follows:—

- (a) *The Christian Family*, based on marriage and a patriarchal order, approximating to that of Christian families in other parts of the world; 20%
 - (b) *Faithful Concubinage*, again based on a patriarchal order, possessing no legal status, but well established and enduring for at least three years; 29%
 - (c) *The Companionate Family*, in which the members live together for pleasure and convenience, and for less than three years; and
 - (d) *The Disintegrate Family*, consisting of women and children only, in which men merely visit the women from time to time, no pattern of conduct being established.
- (c) and (d) 51%

It appears, then, that a high proportion, probably the majority, of working class and peasant children are not brought up in a household where father and mother live together for the period of their childhood; in a very large number of households the mother or maternal grandmother is mainly responsible for the maintenance and training of the child. Normally the living conditions of such a household will be lower than the average, and the average is not high. Housing conditions in particular are very poor: the 1943 census showed that nearly one-third of the dwelling houses had a superficial area of less than 100 square feet. Overcrowding has serious moral and physical consequences, and the medical services of the country, and its social services in general, remain inadequate. In spite of a very considerable decrease in infant mortality, due to some improvements in nutrition and child care generally, the rate is still high:—

Year	Rate
1948	86.51
1949	80.25
1950	78.45
1951	81.22
1952	74.83

These compare unfavourably with figures reported from England and Wales where the infant mortality rate for 1950 was 29.6.

The children brought up under these conditions are usually by no means able to profit to the full from educational facilities and the latter, in spite of great improvement, still leave some 70,000 children, mainly in the rural areas, with no chance of enrolment. The child accepts certain social patterns; its expectations and aspirations are limited by environmental influences; nor does migration to the city (to which many young people have recourse) radically alter either outlook or environment. Indeed, the kinship ties are maintained by the exchange of presents and visits between the urban and rural members of a wide group of relatives, and the industrial worker from the country may still continue to think in terms of the casual employment and hand-to-mouth domestic economy of the mother-centred rural home.

The conditions of life lead to a general acceptance of the traditional principles of social stratification. Amongst these colour is important. Social differentiation upon the basis of colour has deep roots and remains in the minds of many as the basic factor upon which many other factors depend. Differentiation does not apply only between the black and the white sectors of the population, but also between the wide range of intermediate racial types, and between the foregoing and racial minorities such as Chinese and East Indians. The Report of the Royal Commission states that prejudice and clash of interest, at least as strong as those to be found between the two racial extremes, exist between the various colour-shade groups.

Wealth, education, occupation and place of residence also play an important part in stratification, and a combination of these factors may often run counter to and override the classification which would be expected on the basis of colour alone. The trend is towards greater social mobility and also towards a more egalitarian society, and this has been particularly marked since 1938, when political and economic change were accentuated and came to play a more direct part in social relations. More widely available educational, economic and political opportunities have enabled members of different sections of the population to rise to positions of responsibility, wealth and power.

In industry colour differences can be seen in the hierarchy of jobs. Workers are usually dark-skinned, whereas top managerial posts more often than not are held by persons of light-coloured or white complexion. The exceptions to this generalization are conspicuous.

This factor naturally affects group expectations and individual aspirations. There are certain jobs to which certain groups in the

society feel they cannot aspire because their fathers and grand-fathers have not. Group expectations are also conditioned by current employment policies and current practices of discrimination. It is only recently that certain barriers have been broken down. Occupational choice is strongly influenced by the prestige factor; although wages may often be lower in certain occupations or jobs, the non-financial returns are sufficiently high to influence choice. But in spite of such aspirations, the pressure on family income makes parents wish their children to earn money quickly and, for example, the aspiration to fill a clerical job may have to be given up or postponed.

The Jamaican society is of course undergoing changes, conditioned not only by its own dynamic and by circumstances, but also by current trends in other parts of the world. The new concept of Commonwealth membership rather than imperial rule, the U. N. Trusteeship ideals, and the change in status of the underdeveloped countries elsewhere, all have their impact on the pace and direction of social change in Jamaica. The development of new forms of political, labour and industrial organizations find parallels in many other areas.

In the trade union field, for example, it is generally found that organization among agricultural and domestic workers is slowest and most difficult. These groups form the majority of the Jamaican wage-earners and this has meant that the whole pattern of union activity has been subject to special difficulties. The high incidence of seasonal and casual employment, and the nature of the estate system impose additional local handicaps on stable union organization. The development of craft unions has also been negligible, due to the low level of skill demanded in the majority of occupations.

The growth of trade unionism and the current upsurge of political activity date from the riots of 1938, and trade union and political activity have been closely linked. Each of the major political parties is closely allied with a trade union organization which attempts to cover all types of workers, and to gain political support from the workers for the party to which it is linked. Trade Unionists in 1938 were 0.41% of all wage-earners; in 1950 they were 24.13%. Gross union assets rose from £150 in 1938 to £20,160 in 1949, suffering a decline in 1950 and 1951 (9).

Government policy during and since World War II has been to foster the formation of workers' and employers' organizations in order to establish collective bargaining as the basis for industrial relations. In the sugar industry collective agreements have been made for a decade, and cover a wide range of subjects. As emphasized in

the I. L. O. report on "Labour Policies in the West Indies" (19), there has been a good deal of progress in West Indian labour legislation (p. 275). Minimum wages, holidays with pay, workmen's compensation, have been the subject of legislative action in Jamaica, though the application of those reforms is to a limited number of workers. Health and safety measures in factories, and to some extent labour procedures, have received the attention of the legislature. The legislative reform of labour conditions, in the words of the I. L. O. report, 'is a well advanced, though recent and incomplete, process.'

In the field of social assistance, the efforts are on a very small scale and handicapped by lack of funds. Infant and Child Welfare organizations are supported partly by Government grants and partly by voluntary efforts, but the scope is very limited in relation to the needs. Unemployment assistance is represented only by the spasmodic provision of relief works.

There is a demand for vocational and technical training both from industry and from the potential industrial labour force. The plans of development call for an expansion of the industrial labour force, for which the available educational and training facilities are inadequate. The demand for an extension of these facilities is intensified by the pressure of the increasing population on resources.

The composition of the present labour force in Jamaica and the nature of the industries newly introduced emphasize the importance of the unskilled and semi-skilled occupations and workers (10). It is particularly for these workers that the standard of general education in the country is of major importance; it is recognized that for many industries the introduction of automatic and semi-automatic machines has greatly increased the relative importance of a practical and general education in contrast to specialized craft training. Although educational policies in Jamaica reflect the realization of the importance of combining manual with literary training for the higher age groups in elementary and secondary schools and although the reports of the Education Department have for some years shown the gradual introduction of practical subjects in the curriculum of schools, the establishment of standards of general education is still a vast problem. The 1943 census of Jamaica reported that only 80.6% of the school age population was at school. (The definition given in Table I indicates that the proportion of school age children attending school at any one time may be less than this figure.) This average conceals a range of 72.9% to 94.6% for the various parishes of the country. These figures are significant as they are directly related to the number of literates. The educational standards attained are closely related to the regularity and the length of attendance at school by

the individual (see Table II). The number of years a child attends school can be seen from the age distribution of children at school. The highest attendance percentage is found among those 11 years old (92%), but the average for those 7-14 years old is only approximately 81%. It is important to realize that although the majority of recruits for industry have been educated to the upper elementary level, sixty-one per cent of the group which constitutes the potential labour market for industry has not reached this standard of education (see Table II).

The census figures (1943) show that the proportion of illiterates and those who can only read but not write is lower among workers in manufacturing and mechanical occupations than it is among all wage earners or among all occupations (Table III). This seems to indicate that the literate person seeking employment in the industrial field will enjoy a greater advantage over the illiterate than is the case in other fields of employment. On the other hand the figures for the pre-professional educational standard indicate a limited field of employment here.

Official policy has fostered the extension of educational facilities during recent years, and the Director of Education is able to show, in his annual report for the year 1950, a total of 702 primary school institutions, 40 secondary and post-primary, and one university college (the University College of the West Indies). Recent figures published by the Education Department show the number of students attending the various types of schools in the year 1951:-

Type of School	Number of Pupils		Average Daily Attendance	
	Boys	Girls	Boys	Girls
Primary Schools	100,985	107,607	67,159	75,495
Secondary Schools	2,628	3,181	2,471	3,020
Vocational Schools	1,170	626	982	495

Vocational education and occupational training depend, and for some time to come will have to depend, largely on the provisions made by industry. But many features of work to be carried out in the industries are entirely new in Jamaica, and specific pre-employment training is not available, except in the particular factory using the new process and equipment. As the new industries will for some time consist of single factories, workers cannot move to other factories in order to increase their skills or their income in their trade, except at the less specialized levels of skill. The processes of training must be accelerated in order to keep in step with the increasing need to train unskilled workers for semi-skilled occupations and semi-skilled for skilled work.

Training for industrial employment necessarily embraces the

adaptation of new entrants to their new working situation and environment; this involves a transformation in attitudes as well as in individual and group expectations. In order to be effective, training must be realistic and must fit into the pattern of Jamaican society.

For all practical purposes there is no apprenticeship system in Jamaica. Two reports describe the state of affairs (1 and 37). The Apprenticeship Committee report stresses that the present law is for all practical purposes obsolete, points out how unsatisfactory is the state of affairs with regard to apprentices (especially in the smaller industries and enterprises) and gives as reasons the lack (in most cases) of any system of training or well-defined conditions of employment; the lack of co-ordination with the training offered by technical and vocational schools, little or no regard being paid to the basic educational qualifications of apprentices or learners; the exploitation of juveniles by some employers, who utilize nominal apprenticeship as a means of securing cheap labour; the attitude of some parents and guardians who are more interested in immediate increase of family income than in a career for the boys and girls whom they seek to place under apprenticeship; the tendency of apprentices and learners, under such conditions, to shift from one employment to another, or to open up business on their own in a small way, before completing training; and the frequent abuse of the system by partially trained apprentices who, in the absence of regulations requiring certification of apprentice and master, are able, when they set up for themselves, to employ apprentices of their own. All this indicates that the range of experience of the apprentice will depend on the training provisions made by his employer.

The lack of schools offering the training needed not only makes it difficult for the employer to recruit students graduating from such institutions, but renders it important for employer and worker to arrange for any theoretical as well as practical training needed by the trainee. Technical and commercial training is provided through full time courses and evening classes at the Government Technical School, Kingston, the Technical and Trade Departments of which "aim at producing in the day classes partly trained apprentices for the building, cabinet making, electrical, mechanical or automobile repairing trades; while the evening classes "aim at improving the standard of education and craftsmanship of men already engaged in these and other trades" (10). The limited number of places,^a the

^a Day Students 538—Commercial 173, Domestic Science 122, Technical 149, Trade 194; Evening Students 707—Commercial 147, Domestic Science 213, Technical and Trade 347 according to the 1950 Report of the Education Department.

content of the curriculum, the quality of teaching and the out-of-date machinery have been criticized from time to time. The other institutions providing technical and vocational training in some form are not primarily in existence for this purpose, and the training for an occupation is incidental to their other educational work. Thus the teaching of the handicrafts, wood work and metal work is included in the curriculum of the Industrial Schools and Homes, which are institutions for delinquents and children in need of care and protection; and these subjects are also part of the activities of the Friends' College at Highgate and of Boys' Town in Kingston (an organization connected with the Youth Movement). Manual training is also given in 40 centres and the 30 handicraft projects in elementary and secondary schools. Industry may occasionally benefit from the teaching given at Practical Training Centres and Training Colleges which are primarily organized for training for work in agriculture, and it can be anticipated that industry will benefit from the teaching given to students of the Jamaica School of Arts and Crafts, where evening classes are being run in modelling, drawing, painting, pottery, commercial art, and design for textiles.

The other opportunities available to young persons who wish to learn a trade are also limited. There are some apprenticeships to industry sponsored by government and by industry, the apprentices being distributed over the island in approved establishments; in addition, Jamaicans go abroad to receive desired education and training, to Britain, and now occasionally to the vocational training courses in Puerto Rico, available to Jamaicans under the Technical Co-operation Programme of the United States. In 1951, 28 students were undergoing training in Britain relevant to the industries which are the subject of this paper (Table VII).

The effective training of the semi-skilled and unskilled workers makes it advisable for industry to look for a scheme and method which is practicable, not too elaborate, and above all not too expensive. The programme should appeal to the man already engaged in industry and should facilitate the training of new entrants.

An increase in number of trained personnel and in levels of skill in the anticipated development of industry indicates training needs. Training programmes will have to be extensive, and also flexible in order to meet the varied requirements of new types of industry and occupation and to keep pace with the process of industrialization.

BASIS AND EXTENT OF THE STUDY

Since training for Jamaican workers will for the time being depend on the programmes and facilities available in industry, and

since it was impracticable to make the study island-wide, it was decided to restrict it, in the first place to industrial establishments, and to the area of highest industrial concentration (Kingston and its suburbs); in the second place, to light industries with a majority of semi-skilled and unskilled workers, which were likely to present considerable variety and flexibility in methods of training, and to have problems typical of those likely to arise in the industries expected to appear under the industrialization programme.

It was also decided to restrict the survey to factories which had offered their co-operation. This was the first survey of its kind to be attempted, and though the factories thus selected might not constitute a random or wholly representative sample, it was felt essential to select on this basis. In selecting from the factories offering co-operation, it was borne in mind that the study should cover as wide a variety of industries as possible to permit observation of general trends; that more than one establishment in any industry should be studied where practicable, to facilitate comparison and evaluation of training methods and to eliminate idiosyncrasies of individual concerns as far as possible; that the labour force to be studied should include both men and women; and that both well-established concerns and new industries should be studied.

The new industries studied were factories in Kingston and its suburbs that had been scheduled under the Pioneer Industries (Encouragement) Law, 1949, and were actually in production at the time of the survey (May-December, 1951). In fact, all but two of the scheduled factories in production were studied: one was excluded because a temporary change of production plans made it impossible to observe normal duties, responsibilities and training methods, and the other because its scale of production did not warrant the engagement and training of workers.

The study accordingly covers a group of 25 industrial units: sixteen well-established concerns employing 2,881 persons and nine pioneer industries employing 772 persons (see Table V). Recent information regarding factories and industrial employment in Kingston is available from the Factory Register, which is a statutory document, compiled in accordance with the Factory Law, No. 43 of 1940 of Jamaica. The Law's definition of a factory necessarily excludes some establishments engaged in the processing of raw materials and the production of articles similar to those of the industries under review. However, it is estimated that the group of excluded industrial establishments is small and does not affect the figures appreciably. The Factory Register (Table VI) listed 173 establishments in Kingston employing 6,868 persons in industries of the types

which have been covered by this study: so that the survey covers more than half of the total number employed in these industries, but only one-seventh of the factories, and there is therefore a bias towards the larger unit. From the point of view of training this must be kept in mind, as the smaller size of a unit has its impact on training needs, organization and facilities. On the other hand the range in size of unit amongst the twenty-five factories is sufficient to permit observations in the small unit as well. Although there are three factories each with over 400 persons employed, there are four factories with less than 20 persons employed in each and one of these has a labour force of only nine persons.

There is a fairly wide range of ages in establishments within the group, as the following figures show:-

Date Established			Number of Firms	
Prior to 1900	2
1900-1909	2
1910-1919	3
1920-1929	1
1930-1939	4
1940-1947	4
1948-1951	9 (Pioneer Industries)

Three of the firms in the last group had been established prior to 1948 as industrial units, but were then engaged on different processes producing non-pioneer products.

METHODS OF STUDY

The basic material for the study has been the experience of managements in the training and adaptation of workers to their jobs in the industrial plants, and the chief instrument chosen for the collection of data was the interview. A discussion with the head of the organization served to introduce the study and to provide the first opportunity to receive information about the firm, which was chiefly about the managerial organization, employment procedures, training, and the idiosyncrasies of the industry or the processes as they affect the human factor in production. Interviews were arranged with all personnel concerned with the employment and training of workers. This usually meant managers, personnel managers, works managers, departmental managers, superintendents, foremen and sometimes charge hands.

The respondent-centred conversational interview was found serviceable for eliciting detailed descriptions of procedures, personal opinions, and qualitative judgements; questionnaires (differing for old and new industries) were used to guide the interviewer. Figures were abstracted from wage books or available personnel records: these furnished no data on length of training or productive capa-

city of the trained worker, for which estimates were made after taking the opinions of all concerned.

No lengthy observations of specific training situations were possible, but a formal tour of each factory, followed by varying periods of time in production departments, was arranged. This afforded the opportunity for short observations of working conditions, job layout, job content, job methods, and morale of the working group, and also for interviews with trainees, operatives who acted as trainers, and trade union delegates. The periods spent in each plant varied (according to size of establishment, number of occupations, and skill levels) from two days to three weeks.

It was not found practical to include any other checks upon the effectiveness of employment procedures, training schemes, or supervision. It was anticipated that in the majority of the twenty-five establishments, production and personnel records would not be sufficiently extensive and detailed for use in making such checks. For example, it was not possible to correlate selection criteria and job success, nor to study the relationship between training methods and speed of training or unit cost of production, nor to analyse in detail the effect of variations in supervision upon production figures. In none of the factories were there personnel records giving the personal histories of individual employees; so that pre-industrial experience could not be related to training success in industry.

As the country has been predominantly agricultural, manufacturing industry has inevitably tended to adopt employment policies developed in agriculture, and has evolved no separate principles of personnel management which are generally and consciously accepted. Accordingly, for the purpose of this paper, certain personnel factors generally accepted in metropolitan industrial countries have been selected as pertinent.

II

AN APPROACH TO EMPLOYMENT PROCEDURE

Recruitment, which is the attraction of candidates for employment, is the preliminary phase of the procedure which, continuing with selection, induction, and training for the particular job, constitutes management's area of participation in the process of training.

The field of recruitment for a particular establishment depends on the state of the labour market and the reputation of the firm. The labour market depends not only on size of population and its distribution by age and sex, but on social patterns and legislative enactments which affect the mobility of labour, such as family structure, the economic and social value of wages, or restrictions on the

employment of women and children, and the scope for horizontal or vertical movement (from one type of work to another, or from one grade to another in the same type). A primarily agricultural economy dependent on external markets and only in the first stages of diversification is peculiarly likely to experience fluctuations in volume of unemployment and underemployment and this may be accentuated by the prevalence of a large proportion of casual occupations. The trade cycle, changes in the skills demanded, and seasonal fluctuations of activity are amongst short-term influences on the labour market. Period of recruitment (the span of time needed to build up the required labour force in any industry or plant) will vary in length according to the size of the labour force and will depend on the facilities for selection and training available in the industry or plant.

Methods of recruitment will vary with the organization of the labour market. Employment agencies, trade unions, employers' associations, schools and training centres, may all be used, and an employer may recruit for the higher grades of employment from employees already in his service in the lower grades. Recommendations by the regular employees, church organizations, or professional bodies may be used, and advertisements may be placed in newspapers and periodical publications. Methods and techniques of recruitment should be decided by their suitability for reaching the relevant section of the labour market. Sources of supply should be evaluated preferably by keeping records of recruits from various sources rather than by subjective 'impressions' that recruits from a particular source are generally better or worse than others.

SELECTION AND PLACEMENT

The process of selection and placement which follows recruitment, has as its object the engagement of recruits most suitable to fill particular vacancies. Selection and placement aim at the prediction of job success and at effecting a saving of manpower, time and material as well as the satisfaction of workers on their job.^a

There are two aspects, each equally important, of the selection process.^b They are the assessment of the job in terms of the demands it makes upon a person who is to do it successfully and without undue strain, and the assessment of the candidate in relation to those demands.

^a Morris S. Viales in "Industrial Psychology" states that the aim of scientific vocational placement is to increase the chances of success and adjustment by exact determination, prior to placement, of applicant's fitness for the job. The aim is to eliminate chance and guess and to introduce relative certainty and predetermined results.

^b Institute of Personnel Management Broadsheet "Selection and Placement."

A man who has performed the tasks, and generally, also, the supervisor in daily contact with the operative, will know what the work entails. Their assessment of its demands upon the operative, however, will most likely be less precise and systematic than that resulting from the more scientific method of job evaluation and its products—job description and job requirements.

Job requirements can be classified under four headings—physical capacity, acquired proficiency, general intelligence and special aptitudes, temperament and personality. Information bearing on an applicant's suitability for employment should be correspondingly classified under physical characteristics (such as height, weight, eyesight, health), attainment or proficiency acquired (such as basic and technical education, knowledge, skill), personal characteristics (which should include such points as marital status, dependents, domestic responsibilities) and potential competency, or that capacity to acquire the relevant knowledge and skill which constitutes trainability and is a complex pattern of general and specific abilities. This information may be obtained, in general by four methods: interview, medical examination, psychological testing, and reports.

The interview has been attacked as a subjective and unscientific method of selection,^a but it remains the corner-stone of any selection procedure, being still the only method known for making a balanced assessment. It does not by any means exclude the other methods: on the contrary, the more evidence the interviewer already has before him, from an application form or from reports and tests, the sounder his assessment is likely to be. Moreover, the interviewer generally gives information on the duties involved, hours, rates of pay, the product of the company, and the process of production—information which is of value to the applicant if he is engaged. The interviewer may also initiate a friendly relationship with the applicant as an employee; even if employment does not follow, the applicant may carry away a feeling favourable to the company which will affect its public relations.

A medical examination is necessary if the physique, health, and medical history of the applicant are to be properly assessed. Psychological tests require special skill in administering them; but various tests have been constructed and found useful. It is essential that a test should be reliable and valid—that is, should rank applicants similarly on repetition, and should test factors relevant to the particular job.

The most frequently used tests in industrial selection procedures

^a Symonds as quoted by C. I. Hovland and E. F. Wonderlic: "Interviewing has not been subjected to experimental scrutiny or statistical validation."

are^a tests of general intelligence, of mechanical ability of space perception, and of various kinds of aptitudes. The various traits and aptitudes have different degrees of importance for different occupations. It is usual to devise a battery of tests pertinent to a specific occupation or job. The proficiency test, in which a sample task is carried out by the applicant, with or without a written trade test, can be used in order to ascertain the knowledge and skill the candidate has acquired in his occupation.

Reports include data on general or technical education of the applicant supplied by the institutions he has attended, and also references from former employers, which are useful to the interviewer if he bears in mind their limitations.

Selection aims at picking out the most suitable applicants, placement at matching employees and jobs in such a way as to secure the best utilization of labour and the satisfaction of the employee. The choice of sources of information as guides in these processes will largely be determined by the relative importance, in executing any particular job, of the individual factor for selection in relation to the job to be filled.

INDUCTION

Induction is that part of a training programme which is concerned with the orientation of the new employee by assisting his adjustment to his new work and environment. Early impressions and experiences are important, and in that sense the induction of the worker begins with his first contact with the firm—that is, as an applicant. Induction training programmes are based on the premise that if the new employee is to feel himself a participant in the activities of the employing company, he must receive correct and adequate information about his job and the relationship which it establishes between himself and the organization, his fellow-workers, and his superiors. They aim at giving him a grasp of the purpose of the establishment, its organization, the functions of other workers, and the way in which the company operates in its different phases and units, while also creating in him a feeling that he belongs to the organization, and a sense of loyalty to the overall job it does. Such a programme makes subsequent job training easier, but it also helps to establish in the worker's mind the true relationship between the man and the job, his place in the factory and his life outside it.

^a The reliability and/or the validity of some tests is questioned by some psychologists. For example Viales in "Industrial Psychology" points out the limitations of intelligence tests as a factor in vocational fitness. On the other hand, amongst others, D. C. Humm in his article "Skill, Intelligence and Temperament" in *Personnel*, September 1943, confirms his contention that it is necessary to assess scientifically the temperamental suitability of candidates.

Induction programmes are of special importance in communities where a high proportion of industrial trainees are new to industrial employment and may not find it easy to adjust themselves to its mechanized production, its division of labour, and the team-work and disciplines which it imposes.

JOB TRAINING

Bellows (3) defines training as "the process of bringing about change or improvement, in employee attitudes or potential behaviour patterns, for a definite purpose." This embodies the concept of training as a conscious effort to influence the trainee, and not as the acquisition of knowledge and skill on the trainee's initiative or by mere experience. Moreover, training cannot be isolated from other activities of the industrial unit and its labour force; there will be a relationship between recruitment problems and training problems, while the extent to which the promotion policy helps to retain trained workers will clearly affect training policy. The worker's total personality is involved and the sum of his experiences must affect his reaction to a particular training programme.

The objectives of job training are to impart to the trainee the content of the job, the correct working methods for its performance, the standards of performance required (as to quality and quantity) and that sense of responsibility for the maintenance of the standards which leads to a continuous reliability of performance. These four objectives will serve as the basis for an assessment of training practices in the twenty-five Kingston factories studied.

Successful training calls for planned, systematic instruction imparted at a rate adapted to the trainee's actual rate of learning; the trainer must be a capable instructor who knows how to encourage correct habit-formation, and not merely someone who knows the best working method of performing the task. Training should be completed in the shortest time compatible with thoroughness. Moreover, training should be followed up by supervision ensuring the progressive development of the worker, whose employment thus becomes a continuous process of training. Finally, training and subsequent productive employment should be regarded as opening the way to further training, such as refresher courses or training for higher skills and promotion.

It is essential to assess training needs. If, for example, a specific objective is the reduction of number of accidents, the issuing of safety instructions or occasional "pep talks" by managers will not be enough. A true training programme would call for certain initial steps: identification of causes of recent accidents, clear definition of

the responsibilities of supervisors and of the importance of correct habit-formation by trainees, an appreciation of the best safety techniques, and the initiation of an organization to keep the workers safety-conscious after a safety campaign is over. Moreover, it would be necessary to classify the workers according to employment levels, permanence of employment, and degree of skill, in order to draw up safety training schemes suited to various groups according to the degree of responsibility for safety imposed on them, the risks they run, and the time available for instruction; skilled workers who were permanent employees would be given longer and more elaborate instruction than casual employees with no responsibility for guarding machinery.

Training schemes will vary in the methods employed. Oral and visual methods are particularly useful with employees in the higher age groups and for those of low educational or intelligence standards. They may be used in conjunction with, or replaced by, demonstrations and textual methods in dealing with other groups.

Where training should be carried out is another decision to be made. For example, the teaching of semi-skilled operatives may be done on the job or in a separate training bay or training department. The number of trainees, the noise, and the spacing of machines in the production department, are amongst the factors which will determine the choice of place. On the other hand, it may be more economical and effective to instruct all charge hands and supervisors by means of formal lectures and the showing of films in a room both suitably equipped and capable of ensuring the minimum of distraction.

The appointment of trainers is often not recognized as necessary; newcomers are put to work by the side of, and under the supervision of, experienced employees. This method of training, the "understudy" method, states the I. P. M. broadsheet on "Training," is not sound for four main reasons: "The ability to do a job well does not by itself qualify a person to teach others; the experienced employee who is expected to carry on with his own job while training, cannot give adequate attention to the learner; inefficient methods of working are perpetuated because the learner copies the faults as well as the good points of his senior, and the latter, in turn, often fails to observe and correct new faults developed by the learner. The experienced employee is sometimes unwilling to reveal the secrets of his skill to a newcomer since he may fear that by training an efficient substitute for himself, his own security of tenure will be undermined."

The qualities required in a trainer must include knowledge and

understanding of the company's activities and policies, knowledge and skill in the job to be taught, and personality with the capacity to impart knowledge and skill to others.

Experiments in industrialized countries show that it is difficult to recruit suitable trainers outside industry. Selected supervisors^a and/or workers may become full-time instructors if the number of trainees is large enough, or they may become part-time trainers and return to their original jobs when not required for training purposes. If it is understood that the position of a trainer is one of superior status and remuneration, employees selected as suitable persons will be willing to undergo training to qualify for such a post.

It is essential that the trainer should be acquainted with instruction methods and the use of training aids. An experiment in which trainers were given eight hours instruction in training methods, showed a marked increase in the rate of learning by beginners. The results of the study further suggested that instructors who were given more specialized training were better than those who were given general training. Mention must be made of the Training Within Industry training scheme, one of the most successful systems, which was first promoted by the Association of Mine Managers of the Transvaal, for the training of "boss boys" who acted as trainers and also in a supervisory capacity in mines (26, XI, paras 15 & 16). The Training Within Industry scheme has since been further developed and is now widely used in the United States of America and Great Britain and in many other countries in Europe, Asia, Africa, and Australia.

The scheme consists of three programmes: Job Instruction, aimed at developing skill in instructing workers, Job Relations, aimed at developing skill in labour management, and Job Methods, aimed at improving methods of work. Each of these programmes takes up five two-hour sessions, usually arranged on successive days. Certain common sense rules for behaviour are given. The method of instruction employed is the group conference method. The content of the course is well-defined and may even be criticised for rigidity and over-simplification. The Minister of Labour, who sponsors the scheme in Great Britain, is careful to point out that Training Within Industry covers only part of supervisory training. The system has proved useful in the training of industrial instructors

^a H. K. Morgan in "Industrial Training and Testing" advocates that supervisors should train their workers, as the benefit accruing from training and experience in instruction should be enjoyed by the supervisor. Others suggest that the supervisor's task is a full one without the duty of job training, but supervisors must be intimately acquainted with training problems and methods and should get the benefit of a course in training.

and has been found of real value as an introductory course for new potential supervisors.

The type of organization selected to operate a training programme will depend on the programme itself. Reduction of accidents has been given as an example of an objective; but training programmes may also aim, for example, at an increase in the size of the labour force, improved quality of work performance, reduction of labour turnover or absenteeism, or increased mobility within the labour force. Moreover, the programmes must be affected by the working conditions, the training facilities available (inside or outside the factory), and the managerial structure of the firm.

The specific objectives of the programme will decide what checks can be used to estimate its value. In some cases measurement of results is easy, in other cases evaluation will be based mainly on assessment by the staff. The attitude of supervisory staff, therefore, will also influence the choice of checks to be used.

TERMINATIONS

Workers' contracts of employment may be terminated in three ways: through the worker's ill health, by his decision to leave, or by his discharge or "laying off" by management. The rate of labour turnover, usually expressed by number of leavers per month per 100 employees, is often a valuable index of the effectiveness of management. A high labour turnover is expensive, for it means lowered production, higher production costs (e.g., on training), and higher administrative costs. It may well indicate either that employees are dissatisfied with conditions of work or that management is not obtaining results satisfactory to itself. How necessary it is to control labour turnover is illustrated by the fact that in various departments of a single American plant the rate varied from 6% to 125%^a. In order to reduce the number of terminations, it is first necessary to establish the real causes by analysis of the circumstances leading up to each termination.

It is difficult to learn the real causes of workers' dissatisfaction. Often the individual concerned does not know them; in other instances the leaver prefers to state superficial reasons or excuses. The exit interview can be an effective procedure if it is conducted by some person other than the leaver's immediate supervisor, who is frequently too directly involved in the causes of resignations. Exit interviews can reveal such causes as real or fancied grievances, illness, lack of understanding of the job or of the importance of the job, improper wage differentials, and personal or home problems.

^a Elton Mayo's study in a textile mill in Pennsylvania.

In some cases the exit interview itself will eliminate the cause of dissatisfaction and the resignation of a useful worker is prevented. In other cases investigation and recognition of causes of dissatisfaction are necessary at an earlier stage; the counselling interview has been found useful, as the provision of an opportunity for workers to discuss difficulties and grievances affords a means of corrective guidance. The number of resignations can be considerably reduced if such counselling is done by a person who can approach the problem objectively.

Causes for dissatisfaction may call for serious reconsideration of personnel policies such as wage structure and wage systems, promotions, training, etc. The occurrence of large numbers of discharges may well be due to weaknesses in selection and placing policies and techniques, or in training programmes, or to vague definition of responsibilities and authority.

Investigation into the circumstances under which contracts are terminated, and the interviewing of all leavers, should be carried out by some person in a detached position. This will ensure that the method of investigation will be regarded as fair and objective, while it will also tend to secure uniform application of recognized disciplinary standards throughout the organization. The interviewing of leavers is an important aspect of terminations procedure, which powerfully influences human relations inside the labour force and significantly affects the reputation of the business in the community.

This discussion of recruitment, selection, induction, job training, and terminations is not intended to be a comprehensive description of personnel factors in large industrial countries, but to provide a conveniently frame of reference for the survey made of twenty-five Kingston factories.

III

THE TWENTY-FIVE FACTORIES STUDIED

THE LABOUR FORCE

The variety of industries studied, of their types of organization, and of their systems of record-keeping, had its effect on the compilation of the necessary labour statistics. Some industries experienced considerable fluctuations in employment levels; some industrial units shared transportation or office personnel with other establishments under the same financial control; and the statistical data were available sometimes in personnel records, sometimes in wage books. To arrive at a common level of calculation, it was decided to define the labour force of an industry as all personnel on the

pay roll at the time of the survey. Factories were visited at all phases of employment, except the times of close-down for the off-season, when only maintenance skeleton staff would be employed. The whole labour force was divided, for the purposes of the survey, into production personnel, personnel of supervision, and the ancillary labour force.

Production personnel falls into three groups: the skilled craftsmen and operators (mechanics, carpenters, masons, with more narrowly specialized groups such as electricians and coopers); the semi-skilled, consisting of machine operators and workers in occupations involving similar degrees of skill in handling materials, machines, and instruments; and the unskilled, which are those at lower skill levels. These are not all labourers: the category includes fruit-peelers, stonecrushers and mates to skilled or semi-skilled workers. To illustrate the range of semi-skilled occupations, syrup mixers and cutters of grapefruit segments, saw operators, crane drivers, and lorry drivers may be mentioned: the essentially repetitive nature of the operation involved being a frequent characteristic of semi-skilled work. Legally fixed minimum wages existed in some industries, and when the rates proclaimed under the Minimum Wage Law were grouped under the headings of skilled, semi-skilled, and unskilled, the workers were grouped in the same way for the purposes of the survey. If a workman performed two jobs in different categories, he was grouped according to the job on which he spent most time, or, failing that, placed in the higher category. A "young person" is any employee below the age of eighteen.

Personnel of supervision includes all persons who are in charge of others (except in one new factory where it was not possible to separate charge hands from the remaining production workers). This group includes all grades of management engaged in the running of the industrial unit, i.e., the manager and all below him to the grade of charge hand. It excludes, however, members of the Boards of Directors, and administrative officers not participating in the day-to-day business of the factory.

Office staff, laboratory staff, gardeners, watchmen and other occupations not directly engaged in the production process of the factory are grouped together into the ancillary labour force. In some of the units the exact number of persons so employed could not be established and an estimate had to be made. This, for example, is the case where the clerical staff served more than one establishment. The resulting labour force gives the numerical extent of the study (Table V). Out of a total of 3,653 personnel, 1,988 are male and 1,665 female. The two largest classes are the semi-skilled and the

unskilled with 1,106 and 1,514 workers respectively, these two groups containing 79% of the female labour force and 66% of the male labour force. This kind of distribution exists in the majority of industries, except in three groups of the old industries where the semi-skilled and unskilled categories represent 100% of the female labour force. The employment fields for men are wider, as in all other classes the percentages of the male labour force are higher than the corresponding female percentages. This was particularly noticeable amongst supervisory personnel. Women were rarely engaged for or promoted to supervisory posts. Six per cent of the labour force are engaged in supervisory occupations: a figure which could usefully be compared with that in similar industries in other countries since it has a bearing on the economic optimum size of industrial units. The unskilled categories show the largest percentage of all groups in the combined labour force of all twenty-five factories and also of the old industries. The new industries on the other hand show an employment percentage of 51 for the semi-skilled occupations. This is the largest category in these industries. If this tendency of shift in skill levels continues, training problems will also undergo a change. The shift from a majority of unskilled personnel to a majority of semi-skilled workers not only implies an increase in the number of industrial employees in need of training, but also points to a change in special training needs. An industry organised along the line of a high division of labour is dependent on specialization and on a preponderance of semi-skilled workers; it may be able to increase its productive efficiency by organizing training programmes with, for example, such special objectives as correct habit formation and improved co-operation amongst operatives.

While most of the young persons employed in these twenty-five factories are trainees or apprentices for skilled or semi-skilled occupations, young persons employed in these industries amount to only 0.3% of the total number of employees, which can hardly be considered a sufficient supply for future replacements. But the true employment figures for persons below the age of eighteen may be larger than those recorded in Table V, since it is only in the cases of apprentices that employers, as a rule, are interested in the age of workers, and few employment interviews included a question about age, so it may well be that a number of young persons among the unskilled and semi-skilled, for example, whose ages are not known to management, are therefore not recorded.

Plans for expansion of the labour force were generally uncertain. In some cases the manager anticipated production at full capacity for a longer period of the year, which would result in fewer fluctuations in the size of the labour force, therefore in fewer trainees. In six out

of nine new industries the managers estimated an increase of approximately 46% in their employment figures would be needed in order to achieve production at full capacity. These plans meant an increase in production personnel only and their successful execution may well depend on the capacity of the industries to train new entrants.

THE BACKGROUND AND CONSTRUCTION OF THE FIRMS IN THE NEW INDUSTRIES

Of the units studied nine were "new industries" i.e., industries scheduled under the Pioneer Industries (Encouragement) Law 1949. Of these five were financed locally, three had been initially financed from abroad, and no information in this respect was received about one concern. Of the industries in the second and third categories, two have definite managerial links with firms abroad, while the other two are self-contained independent units. It is probably no accident that three out of the five new industries financed locally are in the wood industry, where skills have long been developed and experimentation has produced new processes now declared pioneer industries under the Law. In some industries managers and supervisory personnel have been recruited abroad, i.e. in Great Britain, Canada, United States, Ireland, New Zealand and Haiti. Superior managerial and technical qualifications and experience were given as reasons for such appointments.

Most Pioneer Industries began on a small scale. In some cases the start was made in a workshop; but, after a relatively short period, processes were developed and planned for mass production. In four factories, managers and foremen themselves designed and built some of the machines. Where machines were imported the erection was done by the permanent personnel. No special personnel or specialized training was considered necessary: managers pointed to the small number of machines involved and claimed that the local mechanic was able to handle unfamiliar problems effectively. It was in operation, one manager emphasized, that difficulties arose; he could more readily find a man who could repair a bulldozer, for example, than one to operate it permanently.

In three factories engineering departments had been set up with an engineer from abroad who was responsible for erection and maintenance of plant: he also supervised mechanics and trained inexperienced labour. In another factory the new machinery was set up by a mechanic loaned by another firm in the same industry: he trained mechanical personnel during this period. One factory hired contractors to erect the machines under direction of the maker and his local agent: the manager felt confident that he and his mechanic

would be able to cope with maintenance. There was evidently a tendency to consider that—as one manager put it—the period of erection had been the training period for present staff.

The building of factory premises did not call for special training of workmen by managements concerned except in one unit in the building industry, where the construction of the factory premises was considered training for the eventual labour force of the concern. One of the larger factories bought its building after construction, another engaged building contractors, and the remaining six concerns started production in old buildings, extensions and alterations being carried out from time to time by the permanent labour force.

The building up of new industries in Jamaica has been a gradual process. Most of the firms are small units and even those belonging to the group of larger units started with small scale production. At the time of the survey one factory in the food industry had a production of 500% of its original output four years before. The initial shortage of trained personnel with the necessary building up of a labour force capable of carrying out the process of production reliably has been one of the factors determining the initial size of the plant and its rate of growth.

RECRUITMENT

It was not as a rule difficult, with the available force of unemployed in Kingston, to enlist labour for a concern, especially in industries requiring mainly employees in the semi-skilled and unskilled classes. Vacancies created by resignations or discharges, or by the expansion of production processes, could be filled without much delay and without special effort or recruiting campaigns by the managements concerned. The exceptions were in a limited number of occupations demanding special qualifications and skills. The lack of organization of the labour market made the tapping of sources of specialized labour difficult. Job seekers and employers both depended mainly on hearsay and personal contacts leading up to interviews. Workers often seemed unaware of opportunities firms had to offer and members of management frequently described it as a stroke of luck when a particular vacancy could be filled by an applicant with the required specific qualifications. Specialized jobs were few in the industries studied and vacancies were rare, but the problem of recruitment of suitable labour was great, as in most cases these jobs were key positions.

In certain factories management had to resort to job training of inexperienced labour in order to fill such vacancies; in other factories persons with the requisite skill were employed in occupations in which their skills were not being utilized: examples are syrup

mixers (in the canning and aerated waters industries), cutters (in the textiles), designers of advertising and neon signs, seaming machine operators (canning industry), and stock clerks.

The Kingston Technical School is one source of labour supply for certain occupations and three firms especially mentioned that personal contact had been established with it when vacancies for mechanics or apprentices existed.

Geographically, the field of recruitment for the rank and file occupations was confined to Kingston and in many cases to the immediate vicinity of the factory. There were two exceptions in this respect. One concern, a factory in the wood industry, preferred men from rural areas. The manager felt that persons from rural areas were more suited for the physically strenuous type of work demanded by the majority of jobs in this factory, and management made special efforts to attract applicants for work from among the friends and relatives of their present employees outside Kingston. The other concern, a firm located on the edge of the urban area, recruited in its early days from a neighbouring fishing village with a considerable pool of unemployed, and this practice continues because the manager believes that it contributes to good relations between the workers if this uniformity of background is maintained.

Another limitation of the field of recruitment is brought about by the policy decisions of some managements. In seven factories it was specifically stated that recruitment is done only by word of mouth through the present employees. The manager or foreman responsible for recruitment tells employees of an existing vacancy and invites workers to introduce and recommend applicants. Recruitment in these cases is confined to the circle of relations and friends of employees. It is a well tried out method and brings with it a number of advantages: workers not only like to have friends around them at work, but also regard it as a personal favour that they are enabled to find work for their relations and friends. This system can also foster interest in the firm among all grades of employees and may also enhance a sense of responsibility in the employee giving a recommendation. It is an advantage to have a labour force homogeneous in social origin and probably in education; but this method of recruitment has certain inherent dangers which, if the method is carried to extremes, may offset the advantages. The manager of one small company, for example, found the field for recruitment by this method too narrow and the danger of cliques forming in his labour force too great for him to use it.

For a number of occupations the field of recruitment was limited by the fact that some of the firms could not give the training needed.

Lorry drivers, mechanics, carpenters and coopers in the ancillary labour force were not organized in departments large enough, or sufficiently broad in scope, to give all-round training; and since trained men were usually on the labour market, recruitment was normally confined to experienced workers. Similarly the availability of experienced cigar makers and bakery table men in Kingston in 1951, made it possible for managements in the tobacco industry and bakeries to confine recruitment for those jobs to trained men. Three concerns limited their field of recruitment to inexperienced labour only. In one instance, this policy was pursued because training of green labour was preferred to the retraining of those with some experience. In the other two firms, management explained that workers with no experience in the trade were less likely to have connections with rival establishments and therefore the risk of losing trade secrets through indiscretions of workers was reduced by excluding experienced personnel.

Working conditions, status of job, wages and all other factors comprising the total remuneration received by the worker, vary from occupation to occupation and in each factory there were certain jobs which were more sought after than others. Such jobs were not necessarily supervisory, like those of charge hand or foreman, but transfers to them were considered promotion by the workers. Recruitment for them was usually carried out from among employees of the particular factory before candidates from outside the labour force were sought. The majority of firms would arrange for the transfer of any employee if he was considered suitable for the new position because they set a high value on the beneficial effects of such a recruitment policy on morale and training costs. In only two factories was it the policy to exclude present employees when seeking to fill vacancies in a better rewarded but different occupation: these establishments were very young and had probably not evolved a hierarchy of occupations or lines of promotion. Four older establishments not using this approach were too small to make transfers possible, or seasonal employment was of such short duration that it made transfers uneconomic.

Another method used by management to limit the field of recruitment was to make it known that only applicants with recommendations would be considered: this was certainly effective in reducing the steady flow of callers applying for work and simultaneously it assisted in the selection of employees from among the applicants. It is evident that in fact the general tendency of managements was to restrict the field. There were, however, a few individual concerns which wished to extend it. Only two employed advertising in the press in order to have the widest possible scope for selection.

THE PERIOD OF RECRUITMENT.

The time needed to build up an adequate labour force varied greatly. At one end of the scale were industries with continuous recruiting, at the other a few restricting their recruiting period to one week a year. The size of the organization, the extent to which it had to effect replacements, the effect of the seasons, spasmodic supply of raw materials, and intermittent demand for the final product, all affected the period of recruitment. The span of time needed to fill any particular vacancy depended on the level of skill required and the extent to which the firm could provide training. In general, however, managements felt that recruiting campaigns were unnecessary.

THE METHOD OF RECRUITMENT.

Internal procedures in obtaining personnel were fairly uniform. The managing director or manager, and in some cases the works manager, authorized the declaration of a vacancy, usually after discussions with the manager and the foreman. In two of the larger establishments, where procedures were more regularized, consultations with the intermediate ranks of management (i.e., superintendent or works manager), as well as with the foreman, took place before a vacancy was declared and recruitment of candidates begun.

Often the foreman played a major role in getting a fresh labour supply. It was found that in five old and two new establishments, the foreman had the authority to declare a vacancy and to recruit labour without consultation with higher management. In most of the other concerns he had authority to act on his own with a limited number of categories of workers, e.g., the casual or the temporary employees and yard labourers. Once the vacancy was authorized and declared by the manager, it was generally left to the foreman to attract applicants for the job. It was he who decided how wide to open the field of recruitment, whom to contact and where to announce the existence of the vacancy. In three of the new industries managers stressed the importance of good recruiting when building up a labour force and these managers preferred to conduct the recruiting of new labour themselves. In two well-established firms, the managers themselves recruited labour in order to avoid the limitation of the field of recruitment to friends of employees.

Interviews with persons responsible for recruitment showed that seven methods of recruiting were employed, most concerns using more than one. A firm's choice would be settled by its recruitment policy, sex and age distribution of the intended labour force, the nature of the occupations and the skill and educational standards they required, the location of the factory, and the firm's reputation in the community as an employer.

The form most frequently adopted was recruitment at the factory gate. It was generally the foreman who made it known to persons outside the gate that a vacancy or vacancies existed and that applicants were wanted. It was a typical situation to find a group of job seekers at the gates of factories where vacancies frequently occurred, and twenty-three out of twenty-five factories used this form of getting fresh labour. In their search for work, job seekers also came to managers and foremen without a vacancy having been declared by the firm. All managements mentioned the steady flow of applicants to their firm and some have a system of recording the names and some personal data of job seekers for future use. To reduce the length of such lists of applicants, five firms decided to consider the applications of persons with letters of recommendation only.

Twenty-two of the twenty-five factories informed their employees of existing vacancies: this was done by word of mouth and usually only in the department where the vacancy occurred. The manager or the foreman invited workers to introduce friends or relatives who were interested.

Recruitment from among employees for promotion was a method adopted by nineteen factories. In many firms this was practical only in a limited number of occupations. In some cases the inertia of workers resulted in a minimum of response to offers of job change within the factory; in other instances management was not satisfied with the qualifications offered. In some concerns vacant permanent positions were filled by establishing a casual worker on the list of permanent employees.

Industries with a fluctuating volume of production or seasonal variations in their production were keen to re-engage former employees. Six concerns kept lists of former employees who had proved themselves satisfactory at their work. It was usually the foreman and sometimes the manager who drew up this list, and recruitment for labour at the start of the next season was based upon it.

Factories were supplied with labour by Trade Unions in some instances. Letters of introduction and recommendation were given to jobseekers by the Trade Union, or the manager of a concern might notify the Trade Union headquarters of the vacancies so that the Union might send applicants. It was difficult to ascertain how widespread was this method of recruitment in Kingston. Three firms specifically stated this source of labour supply.

The occupational structure of the labour force showed only a comparatively small number of occupations requiring qualifications in the workman not obtainable by the five methods of recruitment already mentioned. Managers and foremen interviewed did not gen-

erally consider it necessary to tap other sources of labour supply, and only in three concerns had efforts been made to establish contacts with institutions likely to assist in the recruitment of trained craftsmen or apprentices. Three firms had found the Kingston Technical School helpful in the search for such personnel. One of these firms desiring to employ comparatively large numbers of young men as apprentices recruited also through such organizations as the Cadet Force. The Manager felt that young men in these organizations had shown some initiative in use of their free time.

Finally, as mentioned above, two concerns used advertising in the press as a method of recruitment of labour. One of these had a strong managerial link with a company abroad, while the other was a firm recently established here as a new industry. The impression was gained that this method is imported and not a general pattern in industry.

No factory in this survey used the Governmental agency—the Employment Bureau, a branch of the Labour Department—as a source of labour supply, although in one new industrial unit the manager spoke of plans to utilize this facility in the near future.

To sum up, it can be said that recruitment of labour for the rank and file personnel of the industries covered by this study, did not present a problem for managements. Candidates considered suitable for semi-skilled and unskilled occupations were available from among the unemployed, while workers were also willing to change their places of employment when vacancies occurred in establishments with a good reputation.

Although seven different groups of recruiting methods have been observed in the twenty-five factories, to judge by the frequency of use of these methods and by the scope allowed for the various methods, there were only two of major importance—recruiting at the gate of the factory and recruiting through employees of the factory. These were not only the methods used by the largest number of industrial concerns, but also the methods used for the largest number of occupations affecting the largest number of workers. Although recruitment within the plant's labour force was practised by a sufficiently large number of firms to rank as third in this respect, the number of occupations and the number of workers affected by this method were comparatively small.

In spite of heavy unemployment, labour showed it could exercise some freedom of choice between different industries as sources of employment. Some bakeries stated that after the legally fixed minimum wages in the bakery industry were raised, there was an improvement in the type of applicant, and married men were now ap-

plying. One manager stated that the tobacco industry could obtain few male apprentices. In another industry, where the process of production entailed both arduous labour and unpleasant working conditions, the supply of replacements was limited. But while managements felt the consequences of the lack of organization in the labour market, they were even more immediately felt by the workers. Compelled to go from factory to factory, or to depend on rumour, hearsay, and contacts through friends for news of employment opportunities, job seekers proceeded without direction and purposefulness, and waste of time and effort was accordingly high.

Sources of labour for skilled or specialized occupations were few, and managements experienced difficulties in effecting recruitment of personnel.

The procedures for recruitment of labour evolved in the factories indicated that managements aimed at reducing the number of applicants for work rather than at expanding the field of recruitment. The foreman had an important role in the procuring of fresh labour supply; the manager's participation consisted mainly of controlling the size of the labour force in the plant by authorizing the number of employees in departments and occupations.

The methods for recruiting workers used in the factories showed a good deal of uniformity in spite of the variety of industries, the variety of occupations and skills, the differences in size of plant and labour force, the differences in the sex composition of the labour force, and the differences in the localization of the plant within the area of Kingston and St. Andrew.

Recruitment and labour supply problems for supervisory grades are discussed later when supervision as a whole is reviewed.

SELECTION AND PLACEMENT

Once the worker had chosen the industry and establishment to which to apply, he seldom declined any vacancy offered. In the general state of the labour market, with more workers than jobs and more applicants than vacancies, selection and placement were essentially activities of management: selection of job on the worker's part was usually possible only in a rather broad sense, most job seekers being semi-skilled or unskilled. It was possible to observe the attitude of workers once they had decided to apply for work at a particular industrial establishment. Whether from experience or fear of long-term unemployment, or from lack of interest in the work, they applied for work in general rather than for a particular job, and they asked for very little information about any vacancy offered, nor was much information volunteered. The applicant limited his right of choice to selecting the industry and his particular immediate

superior: in those factories where foremen engaged labour, the applicant offered his services to the foreman he preferred. The most prevalent methods of recruitment, through friends and personal contacts, of course made it possible for the applicant to have a good deal of information about the work and working conditions before he came to the factory, and it will be seen from the account of selection procedures and methods below that applicants asked for very little information about the job and that managements often assumed such prior knowledge on the part of the prospective employee.

Study of the procedures, techniques and methods involved in selection and placement fell under three heads. It had first to be ascertained who selected employees, which members of the staff participated in the process and who finally engaged the worker. Secondly, the place where selection was effected had to be discovered, since the environmental circumstances of the interview are important when, for example, the qualitative aspect of selection procedure is considered. Thirdly, an enumeration of methods of selection and placement, and of aids to those processes, was undertaken: while methods interlock and overlap, general trends could be observed. The procedures considered under these three headings form the background to the later discussion of the criteria of selection.

SELECTION PROCEDURES AND PERSONNEL.

In the factories studied, selection and placement were carried out by line supervisors. These being in contact with production processes, had an intimate knowledge of the requirements of the jobs to be filled. This probably explains why selection procedures are exclusively concerned with the assessment of the candidate. No attempts to carry out job assessments were discovered. Systematic job analysis will be useful even to staff intimately acquainted with the work when they aim to select the most suitable candidate.

Personnel responsible for, or participating in the selection of employees included the foreman or forewoman of the department where the vacancy occurred, the superintendent or works manager and in isolated cases, especially in the small factories, the managing director.

In thirteen of the older industries, responsibility for selection of general labour rested with one person as follows: Manager (4 factories), Personnel Manager (1 factory), Works Manager (5 factories), Foreman (3 factories). In two factories selection was the joint responsibility of two members of the staff. These were in one case the superintendent and the manager; in the second the foreman's selection was followed up by an interview given by the works manager. Only in one of the older establishments was selection the joint res-

possibility of three staff members—the manager, the superintendent and the foreman.

In the new industries the selection was the sole responsibility of one staff member in six factories—the manager in five establishments and the foreman in one. Joint responsibility of selection was borne by the foreman and the manager in three factories.

Other variations with regard to the responsibility of selection were caused by the varying composition of the labour forces in the industries studied. In fourteen factories special selection procedures were established for the various occupational groups. This was related to occupations involving special skills or qualifications. In eight of these fourteen organizations the foremen in charge of such personnel had the sole responsibility for interviewing, testing and engaging their employees. Managers justified this degree of authority in the foremen by the higher standard of foremanship prevalent in these departments and by the fact that technical proficiency was considered the chief criterion for selection in these occupations. In five factories of the fourteen organizations, managers were the sole selectors for personnel in occupations requiring special qualifications. Managers selected and engaged cartmen, salesmen, lorry drivers, and the cutters in the garment-making industries. In one factory the selection of skilled personnel was the joint responsibility of the engineering manager and the foreman of the department.

Variations in selection procedures in four firms were based on the fact that in two of them the foreman's responsibility and authority in selection and engaging of workers was limited to the female employees and in the others to the casual workers: managers participating in the selection of the male employees in the first two and of the permanent employees in the second.

To sum up, personnel participating in selection and placement were usually the manager and the foreman. In only one establishment was selection carried out by the personnel manager. Variations in procedures were due to different organization of managements and the different compositions of the labour forces. In the majority of cases the manager was more concerned with the applicants for the semi-skilled and unskilled occupations, which included the majority of employees. The foreman was most frequently concerned with selection of persons in the skilled occupations and of casual employees.

PLACE OF SELECTION.

The arrangements made for the reception of applicants for work and the facilities provided for the selection of these applicants are important because they contribute greatly to the impressions future employees gain of the firm and will condition the effectiveness of

selection procedures. Both are indications of the firm's attitude and expressions of the personnel policy practised.

In some of the factories under observation, reception arrangements had been given consideration and regularized. The larger units had gatemen and no unauthorized person was permitted on the premises. It was comparatively easy for an applicant to establish contact with the manager, whose office was usually easily recognizable and accessible, but it was considerably more difficult where the candidate had to see the works manager, the superintendent or the foreman when applying for work. No factory had provided a waiting room.

The degree of privacy is an important factor in the success of an employment interview. Managers interviewed applicants in fifteen instances in an office, in five instances at a desk in the entrance hall or in the work room and in three instances at the door. Works managers and superintendents arranged their interviews with applicants for work in three instances in an office, in five instances at a desk in the work room and in three instances at the entrance. There were seventeen instances in which the foreman interviewed prospective workers. Fourteen of these meetings took place at the gate or entrance door of the premises and three at the foreman's table in the work room; no foreman had an office available for this purpose. One foreman frequently interviewed prospective employees in their homes. Proficiency testing, used in selection of experienced workers in many factories, was carried out in the general work room on machinery used for production purposes. No tools or test tasks were specially prepared.

The physical and environmental conditions of the selection situation were considered unimportant by the majority of the staff responsible for selection. Interviews were usually conducted with the interviewer or interviewee, or both, standing. Trials and tests were carried out at any vacant work place, irrespective of possible disturbing effects on the applicant or the other workers in the room.

SELECTION METHODS.

The Interview. The most popular technique in use was the employment interview. The technique of a systematic interview for assessing and placing the applicant has not yet fully evolved in these industries. The approach of most interviewers to this method of selection was rather that of "having a talk", but this did not usually result in getting or giving all the pertinent information. In three firms, forms for the recording of personal data and previous working experience of the candidate were prepared and acted as a guide to the interviewer. Generally long-standing experience in the hiring of

labour and intimate knowledge of the local worker on the part of the staff provided the basis for the assessment of candidates.

The interview was usually short. Duration seemed to be conditioned by the place where the interview took place, the information required, and also the preoccupation with production problems and other departmental duties on the part of the interviewer. As one foreman put it, he went to the gate and "had a good look." Applicants hardly ever used the opportunity for acquiring specific information about the job and working conditions. If the interview was concluded by the engagement of the applicant, the title of the existing vacancy and the wage for the job were stated, and in a few instances the manager talked to the prospective employee about discipline and works rules. Any further information was given to the worker after the actual engagement. At four factories the new employee signed the works rules and a contract of employment; at another he was simply shown the works rules. Any further information was given later. This aspect of procedure will be discussed further when induction is considered.

Preliminary Screening. In two of the well-established industries, persons recruited who presented themselves to the selecting staff member of the industrial establishment, passed through a process of preliminary screening. Here, in order to improve the qualitative as well as the quantitative aspects of the employment interview, arrangements were made for the applicant to fill in an application form—a fairly full questionnaire which supplied the selecting officer with personal data and information about the candidate's educational and occupational qualifications. The form completed, the applicant had a short preliminary interview and persons considered suitable for employment were informed that they would be called back in case any vacancy occurred in the relevant occupation.

Preliminary screening as a method of selection can be regarded as practised also when the applicant had two or more interviews before being accepted. As mentioned above, this is done in three old and in three new establishments.

References, Recommendations. A large proportion of managers felt that to follow up references was of little value. This source of information was considered unreliable as it was open to abuse. In spite of this opinion, it could be observed that recommendations were frequently used as a technique of selection. First, there was the large group of firms following a policy of recruitment through their employees, where the recommendation of the introducing employee was accepted as a basis for selection; secondly, there was a group of ten firms in which selection was largely based on the recommendation

received from a prominent person in the community or from former employers. Recommendations were sometimes in writing but were more frequently made verbally. Some firms restricted their recruitment of labour exclusively to persons with recommendations; one concern insisted on a recommendation and a report from the Criminal Investigation Department for such employees as maintenance mechanics and driver-salesmen. The importance of a good recommendation from a reliable person was so stressed by one manager that the impression was gained that selection was practically based on the character and reputation of the person making the recommendation.

The Proficiency Test. Another popular technique of selection was the use of a proficiency test. The applicant with previous experience was asked to perform all or parts of the duties involved. Such tests varied considerably in length, ranging from fifteen minutes to half a day. Tests were administered in the general workrooms and usually judged by the foreman. An extension of this test period into a period of trial or probation can hardly be considered a technique of selection for employment. In eleven factories out of the twenty-five under review, candidates for some or all occupations were engaged on probation. The probation periods were stated to be one day in two factories, a week in one factory, four weeks in another factory, two months in another; they were of unspecified length in the remaining six factories. Also the first day of employment of casual workers was often considered by management and by the worker as a trial period.

Selection following the engagement of the candidate, whether or not such engagement was made with reservations or on the understanding of a probation period of employment, is a form of selection by elimination. During the initial period of employment the individual becomes one of the labour force; he gets to know his fellow workers and they get to know him. If such an employee does not pass the probation period successfully, the termination of his employment must be included in the labour turnover of the working force; in such a case, selection procedures have failed to achieve one of the main aims—the reduction of the labour turnover rate and the reduction in the costs in material and human effort involved.

The impact of the method of selection by elimination is shown in Table 1. The figures are taken from the records of a factory where the majority of the employees are employed for a season of eight months duration each year:

TABLE No. 1. ANALYSIS OF LEAVERS FROM AN INDUSTRIAL ESTABLISHMENT

January to August, 1951

Part 1.

Length of Service	No. of male leavers as % of total male leavers					Total
	Reasons for interruption of employment					
	Laid Off	Unsatisfactory performance	Medical	Own Accord	Reasons not known	
Under a fortnight	—	6.3	—	—	—	6.3
Fortnight to/under one month	6.3	6.3	—	6.3	—	18.9
1 month to under 8 months	37.4	12.4	—	—	—	49.8
8 months	6.3	—	—	—	—	6.3
Length of service not known	—	—	—	18.7	—	18.7
Total	50.0	25.0	—	25.0	—	100.0

Part 2.

Length of Service	No. of female leavers as % of total female leavers					
	Reasons for interruption of employment					
	Laid Off	Unsatisfactory performance	Medical	Own Accord	Reasons not known	Total
Under a fortnight	—	23.0	—	1.6	—	24.6
Fortnight to under 1 month	3.4	9.8	—	1.6	—	14.8
1 month to under 8 months	36.1	9.9	1.6	1.6	—	49.2
8 months	8.2	—	—	—	—	8.2
Length of service not known	—	1.6	—	—	1.6	3.2
Total	47.7	44.3	1.6	4.8	1.6	100.0

TABLE No. 1. (Continued)
Part 3.

Length of Service	Distribution of leavers (within sub-groups) by length of service											
	Laid Off		Reasons for interruption of employment						Reasons not known		Total	
			Unsatisfactory performance		Medical		Own Accord					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	% of total	% of total	% of total	% of total	% of total	% of total	% of total	% of total	% of total	% of total	% of total	% of total
Under a fortnight	—	—	25.0	51.9	—	—	—	33.4	—	—	6.3	24.6
Fortnight to under 1 month	12.5	6.9	25.0	22.2	—	—	25.0	33.3	—	—	18.7	14.7
1 month to under 8 months	75.0	75.9	50.0	22.2	—	100.0	—	33.3	—	—	50.0	49.2
8 months	12.5	17.2	—	—	—	—	—	—	—	—	6.3	8.2
Length of service not known	—	—	—	3.7	—	—	75.0	—	100.0	—	18.7	3.3
Total	100.0	100.0	100.0	100.0	—	100.0	100.0	100.0	—	100.0	100.0	100.0

All leavers constituted 53.1% of the total labour force in this factory; whereas all male leavers constituted 40.0% of all male employees, the corresponding figure for women amounted to 58.1%.

Certain conclusions can be drawn from the Table. Thus, the figures show that 25% of male leavers have been discharged as unsatisfactory. This represents 21.4% of the total labour force of this factory. This may be interpreted as a criticism of selection methods used in this organization: especially as 25% of male leavers and 51.9% of female leavers discharged as unsatisfactory worked for periods of under a fortnight. These high percentages indicate that selection was to a large extent done by elimination in spite of interviews and proficiency tests administered in this factory prior to engagement.

Again, the method of selection by elimination seems to be less used with the male labour force than with the female labour force. The percentage of discharged personnel with under a fortnight's service is considerably less for men than for women; furthermore the percentage for male employees discharged increases with increasing length of service and such discharges may be due to causes not easily detected by selection methods.

Thirdly, there are fewer failures among the male than among the female employees. 1.25% of the male labour force constituting 25% of the male leavers were dismissed as unsatisfactory; the corresponding percentages for women are 3.2% and 44.3% respectively.

In the fourth place, the manager of the firm stated that some of the laid-off employees would have been considered unsatisfactory had the seasonal effect on production not demanded their dismissal at the time. The season in this factory lasts eight months, and 87.5% of male leavers and 82.8% of female leavers were laid off before completing eight months service. This indicates either that leavers were included in this group who were discharged before the end of the season, probably for other reasons than reduction in production volume, or that the high labour turnover rate compels management to recruit and engage new employees well after the season has started.

Finally, there is a marked difference between the sexes within the group of leavers who terminate their employment of their own accord. 25% of all male leavers as compared to 4.8% of all female leavers discontinue their employment at their own initiative.

Medical Examination. Eight factories had a medical practitioner performing some of the accepted functions of a works doctor. His participation in the selection of employees was considered desirable by most of the managers, but only in two industrial units were arrangements made to ensure certain health standards by a medical examin-

ation prior to engagement of candidates for certain occupational groups. Difficulties in organization, expense, and opposition of workers were the major obstacles cited to the initiation of such selection methods in other establishments. In one firm applicants were weighed by a member of the staff. The weight was considered an indication of the person's health and physical strength and a minimum weight had been fixed by the management as a condition of suitability for employment.

The factories studied included units covered by the provisions of the Public Health Law of Jamaica (Chapter 71) and the Bye-Laws made by the local Health Board, the Council of the Kingston and St. Andrew Corporation, under that Law. The production processes in six well-established firms and in two new factories involved the handling of food products. The provisions concerning the examination of persons prior to their employment in occupations involving handling of food, and their subsequent periodic examination in practice hardly affected the selection of workers.

To sum up, the interview was supported by other methods of selection in some instances. Preliminary screening with the aid of application forms and/or short interviews, the following up of references and the procuring of recommendations, as well as the proficiency test, have been put to use with varying frequency by managers and foremen. There was an appreciation that a medical selection of employees should show beneficial results on attendance at work and total labour efficiency.

Personnel records were rarely being kept. Besides the three firms using application forms, there were four others keeping some form of record of personal data regarding their employees, one other unit planned to keep personnel records later. In no case was any record made of the content of interviews or the conclusions of interviewers. It was usual to find the wage book the only record regarding the labour force.

In summary, selection procedures evolved by managements varied with the different hierarchies and organizations of those managements and also according to the occupation of the labour force. The former influenced mostly the decision as to who was to select applicants for work. Selection officers were the supervisors, foremen, superintendents, works managers, managers and directing managers. The labour force was divided according to skills or according to work contracts (i.e. permanent or casual), or by sex; selection and placement procedure varied for such groups within each labour force. The employment interview was the chief instrument in employee selection. It was generally short and used mainly for getting in-

formation about the candidate. The interview was hardly ever considered an opportunity to give information about the job to the applicant or to establish a relationship of mutual confidence between employer and employee.

CRITERIA FOR SELECTION.

Information considered pertinent for selection purposes by the managements and the minimum standards required by managements varied considerably. The kind of information sought by staff responsible for the selection of workers and the means of obtaining this information have mostly been developed individually by these members of the staff.

The knowledge of the demands made on the worker in the various occupations and the knowledge of job content were largely acquired by each staff member during the process of his duties as a supervisor. No specific investigation of job assessment and job requirement had been made in any of the factories visited or by any of the selecting officers interviewed. The criteria for selection as they were used in these firms were based on an overall general impression and a comparison of good and less satisfactory workers. This approach is subjective and no checks on the validity of the criteria used were made.

A certain degree of uniformity existed. The physical characteristics of candidates were considered by selecting staff members in eight establishments out of the twenty-five. In five firms it was left to the interviewer's judgement to ascertain the applicant's physical ability to do heavy manual tasks or to perform outdoor work, and as mentioned previously, in two firms certain occupational groups were selected by a medical examination and in one firm all candidates had to be weighed. Seventeen establishments felt that information regarding the physical characteristics of candidates was not essential for selection.

The personal characteristics of applicants were given different degrees of importance in selection for industrial employment. Knowledge of the home circumstances of the candidates was rarely sought: only in five concerns were applicants asked whether they were single or married. In two factories married men were given preference: one of the foremen observed that the man who does not live with his parents and has home responsibilities is a superior worker. On the other hand in one of the new wood industries the manager explained that the firm could not afford to pay a wage high enough for the support of a family, and preference was given to single men, especially those who had come from rural areas and were without dependents in town.

With regard to sex, selecting officers were generally limited by the decision made before recruitment began for a particular vacancy. Tradition, working conditions and differential wage levels played their part when such decisions were made. The three bakeries, three new wood industries, one concern in the building industry and two well-established firms in miscellaneous industries, employed men only. The remaining establishments engaged employees of both sexes, but there was occupational segregation of the sexes, except in the following cases: cigar makers in three tobacco industries; graders, selectors, examiners, colour classers in one out of the four cigar factories, veneering machine operator assistants in one firm, seaming machine operators in one of the new industries.

In twelve establishments, six old and six new, the age of the applicant was taken into consideration for selection. One of the larger units set definite age limits for new employees; its minimum age of eighteen excluded young persons from employment and therefore eliminated the need for management to create and supervise the special conditions of employment demanded by the Factory Law for young persons, while the maximum age of fifty years made it possible to let all employees participate in the pension scheme. Most of the twelve factories considered age specifically in relation to training. It was felt that there was a greater ability to learn in the younger person, and the firm decided that apprentices to craftsmen should be about sixteen years of age and that other green labour "should not be too old." Only two managers set a definite age limit of thirty to thirty-five years for inexperienced labour. The limited earning capacity of employees under training was not apparently considered relevant to age limits when these were established.

The chief topic of discussion during employment interviews was the previous experience of the candidate. The interviewer received information about the level of attainment, or proficiency acquired by the applicant, about the skills and the knowledge he possessed and the basic as well as the technical education he had received. Basic education was not always considered a criterion for selection of employees. Interviewers in eight old and three new industrial units desired information concerning the educational standard of candidates, but in the remaining fourteen factories such information was not considered pertinent. Generally the approach in the eleven firms desiring information was similar to the view expressed by the director of one of the larger units: "when considering educational attainment of applicants rough standards are adhered to, but education is considered less important than other character qualities." On the other hand in the case of cartmen in the bakeries and lorry

driver-salesmen in one of the food industries, selection methods included a test of simple arithmetic. During selection for transfer or promotion, the educational attainments of the candidate were taken into account to a greater degree. In such cases foremen and managers seemed to make a combined judgement of educational standards and intelligence. The capacity to learn and the general ability to be trained were given consideration in this process.

Attainment in the field of technical or occupational education was occasionally taken into account by selecting officers. In some firms preference was given to applicants who had pursued or were pursuing a study of theory related to their job, or had received instruction at the Kingston Technical School or some other institute. The standard attained seemed of minor importance. For example, second year students were accepted for employment in skills which required more years of training.

Full proficiency was required of candidates for certain jobs. The interviewer obtained the information relevant to this selection criterion from recommendations or trial tests. Some of these occupations were: mechanics, welders, riggers, electricians, lorry drivers, carpenters, cutters in the textile industry, cigar makers and almost all occupations in the bakeries. In some factories previous experience in other lines was considered of value when the skills acquired were regarded as convertible to the new occupation; thus ex-dressmakers were especially recruited for vacancies as trainee citrus segment cutters or as trainee cigar makers. The manager of one food factory preferred workers who had acquired a skill of any nature. This factory is the only one of its kind and all entrants had to undergo training. In the opinion of the manager, the previous experience had a beneficial effect on the man's attitude to his work and his interest in the quality of the final product.

In general, interviewers obtained little information about the candidate's intelligence, general and specific abilities and aptitudes. Selecting officers did aim at a prognosis of such qualities as tenacity, reliability and co-operativeness, especially in applicants for apprenticeship vacancies. These were mentioned by various managers and foremen as factors in job success and therefore were considered criteria for selection purposes.

Selection procedures as they have been described hardly permit the obtaining of sufficient reliable information to make effective selection feasible. Untrained interviewers, unfavourable environmental circumstances, short duration of interviews, lack of other selection methods besides the interview and of objective criteria for selection—all these tended to handicap good effective assessment of

the candidates. It is not surprising that the assessment of the above-mentioned factors was attempted mostly during selection for promotion. In these cases the relevant information was often obtainable from supervisors and was not dependent on other selection techniques.

Psychological tests as they are known in other countries, must be verified as to their validity and reliability as applied to the labour force in Jamaica before they can be used. Although one firm (which is not one of the twenty-five surveyed in this paper) has used a battery of tests for selection of employees without finding it necessary to make any major alterations in these tests as they are used in the United States, it is probably too early to judge the effectiveness of this experiment. Investigation into the usefulness of the tested qualities as criteria for selection for industrial employment in Jamaica could prove helpful in the decision regarding the relative importance of individual tests.

At present it can be said that the results of tests of general intelligence should be considered of primary importance among test results. For new entrants into industry the capacity of the individual to adapt himself to a new situation and his trainability are most desirable qualities. Training given to an employee thus selected, should be effective in a relatively short time and the company is assured of a useful member in its working force.

On the other hand the industries introduced into Jamaica are often highly mechanized and jobs are of a repetitive nature. In such cases, training should be shorter for employees selected for special aptitudes pertinent to the specific job. With a large number of unemployed persons in Jamaica, it is likely that a sufficient number of individuals possessing the specific special aptitudes could be found. In the building up of a labour force for a new industry, special aptitudes should not be the sole criterion for selection. The firm is likely to need personnel suitable for promotion in the future, as raw materials and market conditions may necessitate a change in the process of production. It may be anticipated that workers selected rather on the basis of their intelligence tests results than on their special aptitudes will prove more useful under such circumstances.

INDUCTION

In general the worker engaged to fill a vacancy started work either immediately after having been engaged or the following morning. The process of introducing him to his new environment and to his new job, followed certain lines in each establishment. Usually if the manager, works manager or superintendent was the selecting

officer, he introduced the new employee to his foreman. In three factories, this was followed by an introduction to the person who was expected to train the new entrant in his job; in two factories the foreman assisted him in his orientation by introducing to him the employees working on the same machine or near to his working place. In two establishments this routine was not followed. Introductions to the foreman or charge-hand were considered unnecessary, because, as one manager remarked, "they are around and see the fellow." In most cases introductions were short and quite informal. It was also usually the task of the foreman to show the new employee his workplace in cases where he had not seen it during the selection process. Only in three cases was this done by the manager or the superintendent; in the case of casual employees in one factory it was done by another worker.

A survey was made in the twenty-five factories to ascertain how much importance was given to initiation of new entrants and how far induction training was carried out in these industries. It was found that in all factories the entrant knew his starting wage before he began to work; with the exception that in one concern he had to work on probation for several days before being told his starting wage. In four firms new entrants were informed, in addition to the starting wage, of the wage to be expected after successful completion of the training period. In no firm was it explained to the new worker how the wage was computed. It was also generally left to the individual to find out which day was the pay day in his new workplace.

Written works rules existed in six establishments. Generally these contained such information as discipline, work methods, laying off policy, grievance procedure, sickness benefits, pension schemes; although none of the six gave all this information. These rules had been drawn up by the managements and were approved by the Trade Unions concerned. In four out of the six establishments the employee affixed his signature as having read and understood the works rules, and therefore accepted them as part of the conditions of employment. In thirteen establishments the new entrant was informed by word of mouth of any works rules to be observed. In one of the new industries a procedure unusual in Jamaica was being followed. The shop stewards had been given the responsibility of introducing the newcomer to the rules regulating work and life in that particular factory. These were chiefly based on an agreement between management and the Trade Union representing the workers. Management ensured that each new worker was introduced to the shop steward and also made provision for the shop steward to have time to perform his function.

In four other factories the oral instruction regarding procedures and rules was given briefly by the selecting officer.

Subjects mentioned included the need for cleanliness (especially in the food industries) and punctuality; regulations regarding smoking in some of the wood and food industries; safety precautions; and the use of profane language. Usually a warning was given that fighting or stealing would not be tolerated and that instant dismissal was the normal result of any such offence. In eight factories the oral instructions given by selecting officers or foremen were scanty and covered only one of the following subjects: willingness to work overtime, willingness to accept changes in processes or products, ban on receiving visitors on the premises, or a general instruction demanding obedience to the foreman. In six factories no information regarding procedures or rules was given to the new entrant.

Safety and accident prevention in the plant were given attention by management at induction in only two establishments, where managers and foremen gave specific instructions and talks to individuals and to groups of workers at irregular intervals. These reminders kept the subject in the mind of the workers and this resulted in a labour force which was fairly "safety conscious." In two other factories the subject was dealt with by putting notices on the walls or by the foreman pointing out the need of caution by word of mouth in very general terms. In two concerns protective clothing was issued. The managers in five firms expressed the view that the most effective method of accident prevention was to point out dangerous working methods on the machine during job instruction. This method is limited in value by the fact that workers also have accidents away from their particular machine or may inadvertently endanger the safety of the plant and/or other workers by actions not connected with the work on their machine. Another fact can be observed in most of these factories—safety instruction was largely a responsibility of the worker teaching the newcomer his job. A few supervisors checked up whether this was done and frequently it was inadequately dealt with or completely forgotten. In fourteen out of twenty-five factories, managers and foremen made no provisions for safety instructions to new employees. The worker had to look after his own safety.

Managers and foremen in six concerns expressed the view that it was difficult to give a new entrant information regarding his prospects of promotion. They maintained that there were few outlets for the rank and file employees and such information could only be given to a limited number in certain occupations. In one firm, the subject of promotion was dealt with in the written works rules. In

seventeen concerns, new entrants received no information on this point, although the survey of the field of recruitment, discussed above, showed that in nineteen out of twenty-five factories transfers and promotions were made within the plant.

Facilities and amenities available varied greatly from factory to factory. Knowledge of these facilities cannot be assumed in the newcomer, and management in seven factories helped to introduce the new worker to this aspect of his employment conditions. In one factory facilities available were explained and a tour of the lunch-room, cloak-room, first aid room, etc., was made so that the worker could know their location. In the other factories managers explained medical facilities available, in others sick leave arrangements, the issue of works clothes or the payment of a laundry allowance. In some factories managers instructed the shop steward or an old employee to introduce the new entrant to the facilities and amenities available. In eighteen factories no such introduction was made. The written works rules in few firms described the holiday arrangements in these particular concerns. In three firms the employment interviewer occasionally mentioned to new entrants the date and duration fixed. In twenty firms new entrants were not informed on this point.

The layout of the place of employment and the work carried on are usually of great interest to new employees. This fact was used by the manager of one of the new factories, who found that a quick tour of the premises with a short explanation about the process of production gave the employee a knowledge about the work done by all which promoted intelligent cooperation amongst his workers, and he also found that such a tour helped him to develop in the individual employee a positive sense of responsibility for the quality of the final product.

In another factory introduction to the first job was combined with a short explanation of the process of production. Here, too, managers observed the beneficial effects on team spirit. In two other firms the process of production was mentioned during the employment interview, and in twenty-one firms management made no provision for this aspect of induction training.

It was the duty of the foreman in one concern and of the shop steward in another to let the new entrant know of transport facilities available for going to and from work. This is helpful to a worker who has not worked in the district before, especially in Kingston where public transport is overcrowded and no bus time-tables have been published. Managements did not consider that an introduction to the recreational facilities available was pertinent to induc-

tion. They felt that the opportunity to become a member of any social organization such as a sports club might be given to the employee at a later stage.

In summary, the casual nature of a considerable number of contracts for employment and the fairly widely adopted system of selection by elimination seemed to prevent the development of induction training programmes. The scope and the quality of initiation of workers to their new working environment and the job were limited. The opportunity for such introduction was rarely provided and the time allowed for this purpose was always inadequate. The subject matter and topics to be included were hardly ever thought out and systematically presented. The result was that induction was patchy and treated rather as an appendix to the selection interview than as an important part of industrial training. The staff participating in the introduction of new entrants rarely co-ordinated their efforts to make it a complete whole. The survey revealed the degree of importance attached by industrial managements to the various factors which may be incorporated into an induction programme. The descriptions given permit these factors to be ranked according to the frequency with which each factor is included in the initiation procedures in the group of twenty-five industrial establishments. When all factors are ranked in order of frequency of mention, beginning with the factors recognised in all factories and ending with the one mentioned by no member of the staff in any firm, the order is as follows: wage, procedures and work rules, safety and accident prevention, prospects of promotion, facilities and amenities, holiday arrangements, factory lay-out and process of production, transport, and recreation.

JOB TRAINING

The preceding section dealt with the introduction of the worker to his new working environment. This orientation training, with its main objective the speedy settling in of the new entrant and the conditioning and encouraging of attitudes likely to contribute to greater working efficiency, leads to the actual job training. In most cases these two phases of training are carried on simultaneously and should be closely interwoven. Job training is the part of industrial training concerned with the instruction of the worker in the specific tasks and duties of his job. In the twenty-five industries studied the training situations encountered have been grouped into four broad categories, which reflect four distinct methods.

Method 1. Training for the largest number of occupations and for the largest number of workers was carried out under the auspices

of management, and was considered a responsibility of the employer. This method had two variations. Training was often done by the understudy method, an experienced worker demonstrating how the work was done and supervising the trainee while he was practising the whole or part of the task. This course was followed with most of the skilled and some of the semi-skilled occupations, but in a few firms new entrants were also initiated into unskilled occupations in this way. The intensity of instruction given and the time allowed for training varied not only by occupations but also from firm to firm. The second variation of this training method consisted of explanation without demonstration, followed by supervision. A fellow-worker or a foreman explained to the new entrant the duties of the job; the individual developed his own method of work or, if circumstances permitted, copied others doing similar work. Charge hands or foremen were expected to give more intensive supervision during the first few hours or days of employment. This method of training was widely used in many industries, and for some operations involving fairly complicated tasks.

Method 2. The worker on his own initiative learned the necessary skills. Management did not participate in this, although the worker learned such skills on the factory premises and equipment and during his working hours. In this "catch-as-catch-can" method of learning, the trainee often got hints and demonstrations from fellow-workers performing the work. Training took place "during free moments" of work. This method of industrial training was frequently used and was often the only training of an employee when he was transferred from his original occupation to a job of higher skill or of greater responsibility.

Method 3. The worker learned the skills of a job outside the factory premises and outside working hours, while employed. Experienced workers acted as trainers; training took place in their homes or workshops. Individuals hoping for a transfer or promotion into an occupation for which management provided no training and engaged only fully trained personnel, learned the required skills and knowledge under such private arrangements. The number of workers so trained for industrial employment was considerable although the number of occupations was limited to the less mechanized tasks.

Method 4. The new employee learned his work by experience rather than by instruction. This was the case with the simpler jobs which were neither "explained" nor "shown" to the new entrant. The employee was given an order by his foreman to perform a certain

task; when this was completed, another order was given and again this work was carried out. This process continued indefinitely until the worker learned by experience the routine of duties involved in the job; he also developed in time the required knowledge and skills. The procedure was applied to those in the unskilled occupations and particularly to the majority of casual employees.

In general the training methods employed in the factories surveyed did not permit the full development of skills, knowledge and attitude in workers. The intensity of training given is the first limiting factor and the second limiting factor emerges from the observation that not only individuals but large groups of the labour force (e.g. employees treated by Method 4) are hardly considered under training during their period of employment. Training conducted on the lines described disregards the possibility of systematic instruction by trainers and the application of teaching techniques which have proved effective elsewhere.

This general assessment of the overall situation in these factories can be used as the basis for decisions as to where specific and detailed investigations are to be made. Observations of shop situations are supplemented by statements made by supervisors. Information required to assess training needs in more specific terms can be obtained by means of other methods, for example production and performance records analysis or attitude surveys. These would provide more information to facilitate the important decisions regarding priorities among the problems which could be solved by training.

Such information could show what production and personnel problems are most pressing; the attitudes of employees towards training; and the manual skills, the attitudes and the over-all abilities, which should be developed. The four training methods are assessed below in the light of the classification of objectives of job training and the requirements of training organizations which was given in the general analysis.

SYSTEMATIC TEACHING OF TOTAL JOB CONTENT.

In learning the skill during "free moments" or by experience (Methods 2 and 4) the trainee got to know the job content through powers of observation on his own initiative. Trainers found it difficult if not impossible to ensure that the learner knew all that he should know. There was a point reached, however, when management considered the employee proficient at work, despite the fact that there was no check on his knowledge. The training given to workers outside the factory premises (Method 3) could hardly include the total job content. It need only be realized that the layout of the

working bench and similar circumstances at the training place were likely to be different from those at the working place and therefore it was not practicable to teach the total range of duties by such a method.

Training under the auspices of management at the future workplace by the understudy method made it possible to give instruction to the new worker in all the duties and skills which would be required of him when executing his work. But it was observed that frequently this opportunity was not utilized. The planning of training was almost everywhere left entirely to the experienced worker who acted as instructor. The attention of these instructors had not been drawn to the need for systematic presentation and practice. The senior management seldom took an interest in the training of workers; the managerial structures, and the division of work among the staff, made training and training problems the responsibility of foremen and supervisors, who generally selected the worker who was to instruct the newcomer. The foreman assisted in the training when he noticed defects in the trainees' work performance.

Systematic instruction in all the duties and skills involved was hampered by training arrangements deviating from the situations described above, but was found often enough in the industries surveyed to require mention. In some factories rotation of work among employees resulted in training being given by several operators to one trainee, and similar results were obtained when training was given during the absences of operators from work. Training of young persons considered apprentices was likely to be unsystematic when instruction was dependent on the type of work occurring from time to time. Some machine operators received their instruction from the mechanic setting up and maintaining the machine; but the mechanic had never operated the machine and therefore was hardly able to instruct the trainee operator adequately. The understudy methods used were not a concentrated form of training; the speed of instruction was likely to be the speed of the operation and less likely to be in step with the learning pace of the pupil.

With regard to the method of teaching by explanation followed by supervision, the training situation facilitated a systematic and full presentation of the job, but was likely to result in too little time being allocated for the training of the new worker, as the foreman usually did the training between his other duties and the speed of instruction was likely to prevent the learner from absorbing the material presented to him. One supervisor in a building material production unit emphasized the need for frequent repetition.

CORRECT HABIT FORMATION IN THE TRAINEE

As far as the work methods were concerned most industrial processes were so organized as to permit each worker to use his or her own best way of carrying out the work; it was rarely demanded that the worker should carry out his job in a particular way. Work methods apparently became the concern of supervisors and management only when the quality of the product or the appearance of the article was affected. Teaching of work method, therefore, was not considered an important part of training. The exceptions were: the operation of power machines in a garment-making establishment; the wrapping of the final product in two factories; cigar selecting and colour classing; and most occupations in one of the building material production factories.

Supervisors usually selected the best workers as instructors. But the best worker did not inevitably employ the best working methods, nor was such a person always the best teacher. The knowledge available to industry from the fields of education and industrial psychology was not utilized; the experience gained by one instructor in a firm was not passed on to another; the sole link was the supervisor of a department who assisted the trainers when he considered it necessary. Supervisors became keymen in the training of industrial workers, but supervisors in the industries surveyed did not consider it their duty to train instructors. In this respect two firms attempted experimentation. In the building material production unit mentioned, the manager actively participated in the training of the first employees in an occupation. He demonstrated to his foremen his methods of training, and this was followed up by frequent advice and guidance to the foremen. In a tobacco factory a supervisor-instructor had been appointed, although this did not seem to have improved the training methods in the department, as the foreman and experienced workers continued to train newcomers.

KNOWLEDGE OF STANDARDS REQUIRED; LENGTH OF TRAINING PERIOD

The foreman was responsible for the efficiency of his department and he set himself standards of working proficiency among his workers. By experience he developed standards he considered sufficient and by experience he had learned to judge the potential abilities of trainees. Most foremen claimed to be able to judge whether it was worthwhile to continue the training of a learner after one or two days in the unskilled occupations and after approximately two weeks in the case of skilled trades such as cigar making. In the absence of tests the quality of these judgements could not be verified, but it was observed that the number of unsuccessful trainees in the twenty-five industrial establishments over the period of twelve

months was extremely small and also that the length of employment of these individuals was long, and frequently longer than the normal length of the training period for the particular occupation even when they finally had to be classed as failures. Foremen did not consider it necessary to convey proficiency standards required either to the instructor or to the trainee.

The training situations (Methods 2 and 3) which did not have the active participation of management, occasionally found their climax in the worker successfully passing a "trial," this being one of the selection methods described for some occupations. Thus a final goal was set, although it was ill defined. In the remaining training methods, instructors and trainees for occupations paid by time rates usually aimed at standards of work proficiency attained by other workers. In the case of trainees for occupations paid by piece or task rates the aim of training was the ability to make a reasonable weekly wage. These are rough standards and should be considered inadequate guidance for trainer and trainee regarding the progress made, and in occupations with lengthy training periods, they could not act as effective incentives for continued effort. It might also be argued that the goals and aims of training as described here were heavily weighted in favour of quantity of production and that standards of quality were unduly neglected.

A critical analysis of training methods must not only consider the standards of proficiency required of the trained worker, but also the length of the training periods for the various occupations. About this it was difficult to obtain precise information; the absence of personnel records and of proficiency tests, the arrangement where training was given at irregular intervals by filling absentee places, and the absence in many occupations of a differential between training pay and the wage for the job, made it difficult to get this information. Some of the agreements arrived at between managements and trade unions in the industries studied, included clauses regarding periods of probation or of temporary employment or the lengths of time persons might be considered learners. But as the specified periods affected uniformly all employees and all occupations covered by such an agreement they could not be taken as length of time required to train workers for the individual occupation. The opinions of managers, foremen, instructors and workers, and their estimates of length of average training periods, were obtained and cross-checked. In most cases individual estimates inside the same factory were fairly close. It is significant that the training periods regarded as normal in different factories for similar jobs showed considerable variations in length. For example, the veneering

machine operators in two firms had to attain a similar degree of skill and their duties and responsibilities were comparable. In one factory a period of two to four weeks was considered average, whereas in the other three to six months was the training period stated by the foreman, instructor and workers. With regard to quality of work it was observed that the final product of the first factory actually demanded a higher standard than that of the other; on the other hand in the second factory the control of wastage of material was somewhat closer than in the first. In two of the cigar factories the training of selectors and colour classers took three to six months in one, and six to eight months in the other. Both concerns engaged ex-cigar makers for this training. The method of work was similar and the proficiency required in these two jobs was very close as the type and quality of cigars in both factories were practically identical. These two instances illustrate the variations in the expectations of managements and their evaluation of training methods can be learned from the fact that in each factory the length of training period stated was considered normal as well as average.

Training periods for some occupations could be considerably shortened by giving the learner more concentrated training. The labellers in one of the cigar factories needed approximately two weeks to learn, and the filter press operators in a food industry took two to three weeks to become proficient at their work. These are examples of a number of occupations where a more detailed and concentrated form of training should shorten the training time.

Full efficiency was retarded in some occupations. For example the stamping machine operators who normally took three to five days to learn a fairly simple operation needed a further period of about three months on the job to develop the required speed. In this case the retarding factors may well have been the inadequately planned work and the poor layout of the workplace which made it imperative for the trainee to experiment with methods of doing his work. He therefore often changed his work methods instead of merely practising a well co-ordinated series of motions.

With regard to the length of training periods required under Methods 2 and 3, no information could be obtained except that two bakery managers were of the opinion that a man of average ability with interest in the work could learn most of the jobs in two to three months.

RESPONSIBILITY AND SUPERVISION.

Managers and foremen frequently expressed the view that the factor of supervision consuming most of their time was that con-

cerned with the ensuring of continuous and reliable work performance by employees, owing to the lack of interest and understanding displayed by workers. Managers and foremen in most factories, when discussing ways and means to overcome this, thought rather in terms of selection methods and innate attitudes of individuals than of training. Amongst the twenty-five concerns there were only three in which managements thought of the possibility of developing by training positive attitudes on the part of the producer towards the process and the product; in some of the remaining factories managements may have hoped that by the selection of responsible workers as instructors such a sense of responsibility would be imparted to the trainee. In the three new industries mentioned, managers experimented with training by methods and techniques to achieve their aim. An understanding and appreciation of the other man's job, a sense of responsibility for tools and machines, a safety consciousness and a pride in the final product of the firm, were to be fostered by a knowledge of the process and an all-round working experience in the plant, by instruction about maintenance and safe-keeping of tools, by disciplinary training with regard to tidiness of person and work-place. Results of these experiments could not be fully judged at such an early stage in these comparatively young enterprises, but the managers were convinced of the positive response by workers to such training, and at least partial success could be observed at the time when this study was carried out.

In one of the larger units a scheme for continued training for driver-salesmen had been carried on over the last two years. To improve working performance and foster co-operation within the department, monthly meetings of managers, foremen, instructors, and driver-salesmen were held. Problems occurring in the day-to-day execution of work were brought up and discussed and solutions suggested. It was essentially a practical meeting where everyone had a chance to improve the combined effort and where management had the opportunity to continue job training with the aid of technical films and talks.

Industrial training obviously has to extend beyond the formal job training period for the majority of the occupations under consideration and the creation and maintenance of an interested and co-operative labour force is a continuous process in which the first impulse is given by the instructor while the supervisor and all other managerial staff are responsible for the later stages. The organization of training in the industries reviewed lends itself well to such co-operation.

The methods employed in the factories centred largely around

the foreman; his was the responsibility for training the workers of his department, and the actual training was frequently carried out by him or with his active participation. The efforts of the instructor and the supervisor were fairly well integrated in all the training methods carried out under the auspices of managements. The extension of job training to include the conscious effort to develop a positive employee attitude towards work and to nurture good industrial disciplines should not be found too difficult from an organizational point of view. But there were two areas of weakness. First, the training received by workers on their own initiative (Methods 2 and 3) needed special supplementing by training organized by managements; and, secondly, managements would have to guard against the danger of building up departmental loyalties at the expense of the building up of interest in, and a sense of responsibility towards, the total process carried on in the plant.

ADVANCED TRAINING.

The training of old employees was rare, and it was considered that the maintenance of standards of work was to be effected by supervision rather than by refresher training. In one factory such training had been carried out when motion study was applied to one of the operations in the process of production, and in order to ensure that the approved methods were used, a refresher training course was arranged. A few examples of refresher training existed in which former employees of a company returned to their old place of employment, as some of them needed a short period of practice.

It has been mentioned that some factories have a hierarchy of occupations and that vacancies were often filled by the transfer of an employee from a less skilled or less responsible job to the work with higher skills or responsibility and a higher rate of pay. All four methods of training were employed in giving instruction for higher skills. The understudy method was usually used when a transfer to semi-skilled work took place. Explanation and increased supervision were considered sufficient when a worker learned another job in the unskilled group. It was for this kind of training that Methods 2 and 3 were most frequently used. The employee with ambition for advancement and transfer would on his own initiative learn the new work from experienced workers inside or outside the factory premises and working hours. Learning by experience (Method 4) was less often used as the tasks were frequently too complicated. Foremen, however, considered this the most frequently used method of training for transfers, and added that more detailed instruction was superfluous as the worker would already know what to do. This seemed to suggest that experienced workers

agreed unofficially to train fellow-workers. This applied also to occupations in which remuneration was by task or piece rates and the earnings of the experienced worker might well have been affected by the loss in production time.

The systematic instruction of trainers had not been instituted in the industries studied. A manager of one factory explained that the economic instability of the industry and the rapid growth of the firm had left training questions neglected. Other factors retarding the organization of this important part of any industrial training scheme, the training of trainers, were that job instruction was normally carried out by a large group of experienced workers, and secondly, that no remuneration was given for training others. In one factory a female instructor was appointed prior to the survey; one of the contributing factors to the only partial success of this appointment may have been the fact that no instruction in training methods and training techniques had been given to the instructor who was to improve the effectiveness of training.

SUPERVISION

Industrial efficiency is dependent on the efficient management of the labour force which is one of the functions of managers and supervisors. The traditions of industry as a whole, the character of the particular industry, and the scale of the establishment will decide the structure of the managerial hierarchy and the degree of responsibility and authority assigned to the various grades of supervisors in a factory. As industrialization has been recent and rapid in Kingston, the technical and human problems confronting managers and supervisors are particularly formidable. In the factories surveyed a very large measure of responsibility lay with the lower grades of management, by which (and particularly by the foremen) the organization and supervision of labour is chiefly carried out. The duties and responsibilities of foremen included the training and supervision of labour in twenty-four factories (one factory had only one supervisor—the manager), the checking of materials and watching of the flow of production in fourteen of the factories, the planning of the daily production of the departments in nine factories, the planning of the weekly production of the departments in four factories, and the maintenance of machines in three.

The foremen carried out some of their duties in co-operation with more senior members of the staff who also assisted them on occasions. In some aspects their responsibilities were not matched by their authority. The degree of participation by foremen in recruitment, selection and placement, induction and training, is discussed above. With regard to dismissal of employees the foreman's

authority was rather more limited; it was only in the exceptional case that he could discharge or lay off a worker on his own authority. Foremen usually had the authority to arrange their work so that some of their duties could be carried out by their assistant foremen and charge hands.

The managerial structure of the concern must affect its policy with regard to recruitment of supervisors, since the supply of candidates will vary with the degree of responsibility, authority and status attached to a supervisory post. But in addition the nature of the industry — the degree of skill it demands—and the size of the plant (on which must depend promotional opportunities) will have an effect; the possibility of short term employment tends to reduce the number of applicants in industries subject to seasonal fluctuations; and if there is a high level of education and technical skill among operators, recruitment from the floor for supervisory posts is easy and natural. The stratification of society by educational attainment, family background, pigmentation, and sex had an influence; and the traditions of the industry or the firm affected the views of directors and managers.

The majority of charge hands and foremen were promoted from the rank and file employees of the factory. Managers preferred this, as the candidate was well known to the manager and selection procedures were therefore simplified, while he had also acquired a knowledge of the various jobs and the process of production carried out in the department and therefore he was considered ready to start work in his new position at short notice. Another cause for this policy probably is that foremen so recruited are more likely to bridge, at least partially, the gap between managers and workers. Social barriers—perhaps even linguistic barriers—seem to preclude managers from obtaining any close knowledge and understanding of workers, and it was not only the managers from abroad who constantly expected foremen to bring these qualities into play.

A reason given for the recruitment of supervisors from outside the labour force of a factory was that the level of education required was not found among the operatives, and that the level of skills attained by the workers was not sufficient for the execution of the supervisors' duties in some of the departments. In one of the new factories managers explained that they had not had the time to train the highly skilled men required for supervision. In some instances the work of the supervisor was such that floor experience was not essential for job success; for example, one supervisor whose main duty was to check materials was engaged because his previous working experience was in bookkeeping; for supervisors of operators in semi-

skilled occupations knowledge of the job rather than job skill was necessary.

The extension of the field of recruitment for supervisory personnel to other countries is partly due to the managerial links of some industries with foreign industrial concerns. It has also become necessary in a number of factories because difficulties have been experienced by managements in finding persons with higher technical knowledge and qualifications or with managerial experience in Jamaica, and sometimes indeed abroad. In some of the new industries which rely upon the importation of new skills into the labour force of the island, the staffing of supervisory positions with persons from abroad was considered a temporary measure, adopted until local staff could be trained. But trainees for management positions were scarce and this process of training local staff is in danger of being slowed down. Recruiting was carried on by a number of firms, but recruits were rarely forthcoming. Boys with secondary school education seemed reluctant to enter industry, and it was held that boys with technical education preferred clerical jobs to work in the crafts in which they were instructed. This seemed to indicate that the aspirations and expectations of young men in the community have not yet adjusted themselves to permit this relatively new field of activity to be considered as an attractive career.

Both methods of recruitment have advantages and disadvantages. The man selected for promotion from the floor of the shop knows the conditions, the management and the workers in the firm; thus recruitment, selection and induction are facilitated. He is known and respected by those with whom he has to work—he has already proven himself. His promotion indicates to others that there are prospects for promotion for the able and this may well influence the number and quality of candidates applying for work at most occupations in the firm. Thus a fair system of selection from the floor can reduce the risk of discontent and frustration. In some cases, however, especially when promotion came after a long working life as an operative, a man would feel it difficult to readjust his attitude and interest to the needs of the new working environment. The majority of charge hands and foremen had been recruited among the workers of the firm; but in such cases they are generally identified with the operatives in status; and the new position is rarely considered as a stepping stone for further promotion into higher managerial positions. The prospects for continuous promotion in industry are poor, especially for women. Information collected shows (Table V) that out of a total supervisory personnel of 221, seven are females. This is less than one-half of 1%, as against 11% in the case of men. Only one of the seven is a forewoman in charge of a depart-

ment; the remainder are assistants or charge hands with rather limited authority and scope: this limited prospect of promotion to positions of higher status with better remuneration must have its influence on the quality of the female labour force and the labour turnover among female employees in industry. Although some of the personal difficulties of a new supervisor are reduced if he is recruited from outside, in three establishments the policy of recruitment from outside had been adopted after it had been found that promotion from amongst the workers proved unsuccessful, the failures being ascribed largely to the foreman's attitude towards the workers: he was too friendly with them, or feared their criticisms, or abused his new privileges. But where foremen were recruited from outside, there was a tendency to identify the foreman rather with higher management and his difficulty in performing the important function of bridging the gap existing between higher management and the workers was increased.

SELECTION.

The variations in job content and the differences of opinion as to what makes good supervisors and leaders in the industrial labour force have caused selection methods and techniques to be developed especially for the circumstances in individual companies and posts in industrial countries. The majority of these methods and techniques include an assessment of candidates after a careful and systematic investigation of their physical appearance, attainments, general intelligence, aptitudes, interests, disposition and personal circumstances. The systematic investigation serves both to help the selector in his assessment and to get the method of selection acknowledged as fair by the successful and the unsuccessful candidates as well as by the remaining labour force in the plant.

In the industries studied, the manager selected supervisory personnel. Frequently he did this after a discussion with the superintendent or with the departmental foreman. The foreman often had a man in his department who unofficially assisted in supervisory work and in such cases the manager's appointment was a confirmation of the foreman's selection. Some managers were able to state the chief criterion for selection of foreman for various departments in their plants; their frequency distribution is as follows:

Possession of knowledge of jobs and skills required in the department (eight old and four new industries); ability to handle people (two old and two new industries); previous supervisory experience (three old industries); ability to carry out the maintenance of machines (one old and two new industries); seniority in the department (one old and one new industry); educational standard (one old and one new industry).

To evaluate these selection criteria as a basis for eventual job success, it is necessary to see how far these qualifications are pertinent to the duties and responsibilities of foremen. One outstanding point is that in only four cases did managers consider the ability to handle people a quality needed by supervisors, although in all factories foremen were expected to supervise labour. In all factories foremen were responsible for the training of operatives, but neither the initial qualifications nor the subsequent training of supervisors provided for this. The knowledge of jobs and skills in the department, which are the most frequently demanded qualifications in candidates, are not satisfactory accomplishments for the effective instructor, who needs an ability to impart knowledge and skills to others and must be able to arouse interest in the work and foster a sense of responsibility in the trainee. All this demands of the trainer that he be able to understand the individuals to be trained by him and that he be able to adjust his training methods and techniques according to the needs of the individual trainee.

Managers who demanded of their foremen an educational standard superior to the one attained by the operators seem to have had two reasons for this requirement. They expected, first, that such a foreman would gain more readily the respect of operatives, and secondly that such a foreman would learn his job more quickly; though a superior educational standard by itself is clearly no guarantee that these expectations will be fulfilled. Again, the ability to carry out maintenance of machinery can hardly be considered a qualification for supervision. In some establishments the size of the factory or the departments justify the allocation of maintenance work to foremen, but selection based chiefly on this qualification does not give sufficient recognition to the supervisory functions of the foreman and may even prevent the appreciation by the foreman of his other responsibilities.

TRAINING.

The training of supervisors is a lengthy process and most firms are not prepared to meet the costs of such training and to consider it a worthwhile investment. In the establishments studied, foremen acquired their knowledge and skills by experience, a process of trial and error which is costly to industry and difficult for the individual. In many concerns foremen received guidance from senior members of management, and also considerable help in the carrying out of their daily duties. Some men learned a foreman's job by working as an assistant foreman. The division of duties was ill-defined and eventually the junior man would be familiar with, and able to carry out, most of the functions of both posts. When the foreman was

absent, the assistant foreman would be called upon to carry out his duties, and these periods were considered his practice time and eventually his selection test for promotion. These or similar procedures were followed in eighteen instances when new supervisory appointments were made.

In nine factories some supervisory posts were filled by men who had undergone a form of training, but this was not invariably the case, managers stating that training was given if time was available. Training was carried out by the understudy method, with the technical aspects heavily outweighing the human relations and administrative content: it was a case of the alert and observant learner seeing and copying his senior's methods. Theory regarding the process of production and basic principles of managerial policy were not included in such training. In one factory the training period was approximately four to six weeks. In one bakery the breadshop clerk, who performed supervisory functions, was trained over a span of two weeks. In one of the new factories where the new foreman was engaged with previous supervisory experience, he was given one week before he was expected to carry out the work by himself. In two of the larger units arrangements were made for assistance to foremen or charge hands (the official name given to trainees) to work under the foremen of various departments for varying lengths of time. These arrangements were appreciated by the men, one foreman observing that the insight he then obtained had often been useful to him in his job.

At the time of the study there were five managerial trainees in four plants of the group of twenty-five. In all cases the individual held a post of stock clerk or draughtsman or assistant manager, but was not called a trainee. The learning of the job content of the more senior posts was intermittent and the training time unspecified; the material of training comprised the day-to-day duties implied in the job as well as some theory and the techniques of the process of production.

PROBLEMS OF SUPERVISION

Managers were aware that it was desirable to improve the quality of supervision. On the average supervisors and managers were six per cent of the total strength, rising to seventeen per cent of the labour force in the textile industry. This is a high proportion, but it is related to efficiency of operators as well as that of supervisors. It is also related to the nature of the industry and especially the multiplicity of skills to be supervised. Another indication of the need to improve was the degree of assistance given to the foremen by the manager.

The most difficult problems of supervisors in management of labour, as they appear to the foremen, superintendents and managers, are given below: the statements indicate not only the conception foremen have of their duties, responsibilities and authority, but possibly also training needs in both categories of personnel—the operatives and the supervisors. Some of these statements are not directly related to labour management, but to the wages system, the organization of work, the flow of production and the layout of the workshop, which are essentially managerial responsibilities in which foremen participate.

Statements regarding the qualitative and quantitative aspects of operatives' work included:

A foreman of task workers: "The quality is my worry, the task wages take care of the quantity produced." The manager of a tobacco factory: "Detailed and intensive supervision is necessary to maintain the required level of quality in the product." The foreman in a bakery: "I must look out, that the men do their work in the right way; as regards speed the men watch each other." The foreman in a factory where most employees were paid time rates: "Keeping up my speed is the main worry, especially in the hot period of the day, when workers are prone to slack." The manager of another firm expressed a similar view, but referred also to the seasonal variations in temperature. A manager of a tobacco firm: "The quality and quantity of work done by employees is good, but a sense of responsibility is not there." In one instance it was claimed that trade unions were disturbing factors.

Statements referring to the reliability in work performance were made by:

A manager: "Quality and quantity of work is good but performance is unreliable. The supervisors' difficulties are caused by the instability of the workers. Amongst the women we find a higher percentage of reliable operators." The manager of a wood industry: "Men lose concentration very quickly—minor accidents happen to experienced machine operators." The manager of a food industry: "Close supervision is necessary as the worker takes no responsibility and does not think ahead. The work, the tools and the materials have to be thought out and prepared for him, a checkup must be made as to whether orders have been carried out. The reliability of the worker is reduced by his thoughtlessness." The manager of a wood industry: "The foreman's main job is to deal with idlers." Another: "The foreman has to be there to maintain discipline; we don't allow bad language or any fights." Two managers in old industries: "The foreman is afraid of the men." Supervision was related to

training of operatives by two managers who said: "After training, little supervision of labour is needed," and "Machine operators are responsible men, they need hardly any supervision."

With regard to interest, the views expressed and quoted below do not give the total picture: for example, a number of jobs mentioned as preferred were better paid than the remaining occupations in the plant, and the question of incentives as well as interest among industrial workers is an unexplored field in Jamaica and research here should prove rewarding. A manager in a food industry: "Setting up and repairing machines seem to arouse the men's interest most and they are only good at that." A foreman in a highly mechanized factory. "Work on machines is most popular; they show interest in this work." The manager of a garment-making factory: "Repetitive work is liked." The engineer in charge of a maintenance department: "The men are not ambitious, their main interest is the wage packet." A foreman: "Close supervision is necessary as the men don't care and have no interest in the job."

The conception by supervisors of their functions and also the organization of employment procedures indicate that the three fields of supervisory functions were not given consideration proportionate to their importance. Selection and training of supervisors in the industries were heavily weighted towards technical proficiency at the expense of the other two fields of supervision—administration and human relations. The assumption that the qualities of a first class supervisor are inherent in every able technician and that they will always emerge from long experience if that experience has been really wide and practical, has been proved wrong: the best operative has not always made the best supervisor. It seems, therefore, that amongst requirements for supervisory posts proficiency in the occupations of rank and file workers had a disproportionate importance as a selection criterion. This appeared to be of particular importance in the case of semi-skilled work where the supervisors needed job knowledge rather than job skill in the occupations they were to supervise.

The technical training needs for supervisory personnel varied not only by industries and firms but also by departments, depending on the kind of work. No attempt will be made here to discuss this in detail, but it should be observed that "a supervisor should have sufficient technical experience and skill to be able to gain and retain the respect and confidence of his operatives." Supervisors who are expected, as leaders in industry, to cope with the problems as they arise should be selected because of their suitability in respect of aptitudes, interests, temperament, personality and trainability. The

men selected should receive training in administration and human relations, not merely in technical matters.

The aim of administrative training requires that all supervisors should understand the organization in which they work as a functional whole; they should know the extent of their own responsibilities and those of others, whose work directly or indirectly affects their own. The aim of training in human relations includes insuring that all supervisors are conscious of the problems involved and are capable of dealing with these problems.

To improve supervision, the qualifications and skills of supervisors in the fields of administration and human relations should be given greater emphasis than hitherto. Increasing importance of these two functional aspects of supervision can be anticipated especially in Jamaica, where the expansion of industry and the increase in the size of individual plants are likely to increase the administrative problems, while the improved general educational standards attained by large sections of the population, coupled with developments in the political field and in the organization of labour, are likely to bring about changes in industrial relations and supervisors will need social skills to deal with such changes. The degree of participation in governmental affairs by the man in the street has considerably increased in recent years. The election of political leaders has been based on adult suffrage since 1944; since that year a series of constitutional reforms has been carried out and in 1953 further constitutional reforms were effected. In the industrial field the rapid growth of trade unionism and the recognition of conciliation and arbitration methods based on arbitrators' panels submitted by employers and workers indicate a tendency towards a democratic development in industrial activities. This has recently been emphasized by the setting up of the first Joint Industrial Council in the island.

IV

THE CASE FOR PLANNED EMPLOYMENT PROCEDURES.

The preceding account is based on observation rather than on exact statistical data, for in the majority of cases the firms studied had not developed the organization of personnel management to the point where generalized impressions could be regularly subjected to statistical check. The lack of organization in this respect points to the absence of appreciation of the human factor in production. Two circumstances tended to encourage the underestimation of the human

factor: there was seldom difficulty, with the high rate of unemployment, in replacing a worker by another with experience acceptable to employers; and the effects of absenteeism and labour turnover on morale, on the cost of training and production, and on total plant efficiency, were not realized. In some of the factories, however, it was possible to extract figures about absenteeism and labour turnover from wage books or other records (see Tables VIII, IX, X, XI.)

Analysis of the data thus available provides information as to the magnitude of the training problems, while the figures for absenteeism and labour turnover can indicate areas of weakness in personnel policies; and the nature of the problems involved in absenteeism and a high labour turnover may emerge from a careful analysis. The fact that any one symptom or group of symptoms may have several causes and can be interpreted in more than one way should by no means be taken as evidence of a fundamental weakness in labour statistics: it should be regarded as an illustration of the interdependence of personnel factors. Statistics of labour turnover and absenteeism are indices of the success or failure of existing employment policies, and provide a means of measuring the combined effect of such factors as employment procedures, and wage structure—to mention only a few of the elements which together constitute the employment policy of an establishment. For such an assessment success or failure may be assessed in terms of the aim set by the policy-makers—the creation and maintenance of a steady, reliable and satisfactory labour force.

To analyse absenteeism, three types of statistical data were collected: the number of persons absent over a specific period; the number of days lost to production over the same period; the number of separate occasions an employee was off work during the same period. The validity of these figures has to be weighed against certain limitations of the data. Hourly attendance records were rarely available and late coming was therefore rarely traceable—generally the figures record absences of full days or half-days only; firms had different methods of recording persons not at work, either as absentees or as leavers; in some cases it was found impossible to separate absenteeism records according to sex; only a few firms investigated and recorded the reasons for absences from work, and it was impracticable to interview workers over sufficiently long periods to investigate the reasons for absences and to correlate data received with such information as age, distance from home, marital status, home circumstances or activities outside working hours. These limitations and the fact that the group of firms was small make generalizations impracticable, but some observations can be made.

Table VIII shows three-functions^a for each firm. E is the average labour force over x weeks; a is the total number of separate absences over x weeks, where an absence is defined as any number of consecutive days away from work; and D is the total number of man-days work lost over x weeks through absence. The average working week is taken to be 5½ days.

U, which measures the contribution of the number of absences to the problem of absenteeism, is the number of absences as a percentage of man-days contracted for and can be expressed by the formula.

$$U = \frac{a}{5.5xE}$$

V, which measures the contribution of the length of absence to the problem of absenteeism, is the average number of man-days lost per absence and can be expressed by the formula

$$V = \frac{D}{a}$$

W, which is the overall measure of wastage of man-days through absenteeism, can be expressed by the formula

$$W = \frac{D}{5.5xE}$$

Thus it shows the percentage of man-days contracted for which are lost through absence from work. This can also be expressed by $W = UV$.

The age of the firm does not seem to have a great influence on absenteeism, although there are indications that new industries show higher values for W than the old industries do generally.

When figures for the various industries are compared, absenteeism as expressed by the overall measure W, shows little variation except that the bakeries appear to experience less absenteeism than is indicated by the W figures generally. In spite of the observation that bakeries, which employ an exclusively male labour force, record a relatively low absenteeism, when industries are grouped according to the sex distribution in their labour force, it appears that factories with an exclusively male or predominantly male labour force seem to experience a higher degree of absenteeism than factories with employees of both sexes: while the four factories showing the highest figures for W are establishments employing men only.

^a These functions have been adapted from those used by F. H. Spratling and F. J. Lloyd, in "Personnel Statistics and Sickness-Absence Statistics" in the Journal of the Institute of Public Administration, London, Vol. XXIX, Autumn 1951.

If factories are grouped according to their predominant system of remuneration, the five establishments paying task or bonus wages, seem to experience a comparatively small degree of absenteeism.

If individual factories are compared, there is a wider variation, the highest value for W being 9.24 and the lowest 1.54. These figures may be compared with absenteeism records in the United Kingdom where 3% is considered the limit of satisfactory experience in industry generally.

Figures in column U indicate that frequent absences contribute in a considerable measure to the loss of man-days in four factories. Such absences may lead to situations where certain groups within the labour force become chief contributors to absenteeism, i.e., personnel of certain departments or occupational groups, or groupings according to kinds of remuneration (time rates or task, piece and bonus payments). Unfortunately figures in sufficient detail are not available for such analysis here.

There is a tendency for higher absenteeism (W) to be caused by an increased frequency of absences (U) rather than prolonged absence (V). This is observable in four factories; two of these are old and two are new industries. On the other hand if they are viewed with regard to their system of remuneration, two of them pay wages calculated by time rates. In the other group of four factories where U (the frequency of absence) plays a less important role in the problem of absenteeism, there are three new factories and one old factory, and in this group two factories use predominantly task, piece or bonus payments and two factories pay time rate wages.

Data permitting the computation of U and V were available for three factories which employed workers of both sexes. Only in one of these is U greater than V. In the other two the length of absence played a more important role in absenteeism than frequency of individual absences.

The length of absence seems to be a less urgent problem in the factories under review. Factories where V is the major contributing factor to the problem of absenteeism tend to have lower values of W, the overall measure of the problem. In the one new factory in the miscellaneous group, however, V seems to be so great a quantity that it is likely to create the need for lengthy replacement of absentee workers.

Table IX has been prepared for those firms only for which data were available on a weekly basis. In addition to the former definitions A is the total of the number of workers having one or more absences in a week considering each week separately over the whole period of observation, and S denotes the summation over all firms. Table No.

IX is to show how the experience of the individual firm diverges from the general experience of all firms taken together. In the case of u , this is with regard to the ratio of absentees to the total labour force and is expressed by

$$u = \frac{A}{xE} \frac{SxE}{SA}$$

In the case of v , this is with regard to the average number of man-days lost per absence and is expressed by

$$v = \frac{D}{A} \frac{SA}{SD}$$

In the case of w , this is with regard to the overall measure of wastage of man-days through absenteeism. It can be expressed by

$$w = \frac{D}{xE} \frac{SxE}{SD}$$

or parallel to the case of Table VIII and w it can be expressed by

$$w = uv = \frac{A}{xE} \frac{SxE}{SA} \frac{D}{A} \frac{SA}{SD} \\ = \frac{D}{xE} \frac{SxE}{SD}$$

Although only three factories experience absenteeism more severely than is normal generally within this group of eight establishments, it is interesting to note the range in variation of experience for w , which is 1.84. This range for u is 3.89 and the number of establishments with a number of absentees above the normal increases to four. The remaining four establishments show figures above normal in column v ; here the problem of absenteeism is accentuated rather by the length of individual absences than the relative number of employees contributing to absenteeism. The variation from the normal as to the length of absences has a range of 1.45 amongst the eight factories surveyed in this table. The three ranges of experience within the group of factories are sufficiently large to indicate that absenteeism is less a problem of industry as a whole or of industries grouped according to their raw material and end product or production processes, than of individual plants and managements. Moreover, firms' experiences seem to differ more in respect of the relative number of their employees who absent themselves from work, than in respect of the working days lost per absentee.

In the above analysis of Tables VIII and IX the number of indi-

vidual absences and the number of persons involved emerged as important factors of absenteeism. Since the problem of absenteeism seems less a problem of industry groups than of individual establishments, it is probable that factors like welfare amenities, working conditions and the degree of supervision given, may play an important part, particularly when comparisons are made between factories with different sex distributions in the labour force. In general, women worked mostly indoors, and performed less arduous work than men; seating arrangements and lunch room facilities were also more frequently available to women than to men. Further study and investigation in this field is desirable. An attempt to relate absenteeism to the system of remuneration in use could be followed up by an analysis of the relationship between absenteeism and the actual possible earning power of employees, or a study of financial incentives in industrial employment.

Information of a more detailed character, particularly regarding reasons for absence, would indicate more precisely the areas of weakness within the labour force. Such information would contribute to increasing the efficient use of labour.

Selected absentee records of individual concerns are given below (Tables 2 and 4). All have the week as the unit of observation. Factories 1 and 2 were chosen from amongst the older industries. Factory No. 1 was one of the larger industrial units with men and women in the labour force and a high number of employees in fairly skilled occupations paid by task rates. Factory No. 2 was one of the smaller units in which levels of skill were for the most part considerably lower, wages were based on time rates and the labour force was exclusively male. Both factories have sickness benefit insurance schemes.

TABLE NO. 2. FACTORY NO. 1 — ABSENTEEISM

PART 1.

Man Days Lost as a Percentage of Potential Man Days to be Worked by Male Labour Force

Dept.	All Causes						Daily Average	
	M.	T.	W.	Th.	F.	S.	All Causes	Sick
1	12.9	13.9	12.9	10.9	13.9	15.8	13.4	8.7
2	66.7	33.3	33.3	33.3	33.3	66.7	44.4	—
3	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
4	—	—	—	—	—	—	—	—
5	—	11.1	11.1	—	—	—	3.7	3.7
6	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	—
Total	12.4	13.1	12.4	10.3	12.4	14.5	12.5	7.7

Note: Man Days lost due to sickness were obtained from records for the sickness benefit scheme. A person is considered sick if a doctor's certificate is produced by the employee. Sickness of short duration is not likely to be included under these conditions.

PART 2.

Man Days Lost as a Percentage of Potential Man Days to be Worked by Female Labour Force

Dept.	All Causes						Daily Average	
	M.	T.	W.	Th.	F.	S.	All Causes	Sick
1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2	4.9	8.9	6.9	7.9	6.9	13.9	8.1	3.6
3	25.0	25.0	25.0	25.0	25.0	37.5	28.1	—
4	5.4	2.7	2.7	2.7	2.7	5.4	3.6	3.1
5	12.7	6.3	6.3	4.8	4.8	9.5	7.4	5.8
6	—	8.3	8.3	4.2	4.2	4.2	4.9	4.8
7	8.3	16.7	16.7	8.3	8.3	12.5	11.8	8.3
Total	8.1	8.9	8.1	7.3	7.3	13.4	8.7	4.3

PART 3.

Percentage Man Days Lost (Male & Female Labour Force Considered Together)

Dept.	All Causes						Daily Average	
	M.	T.	W.	Th.	F.	S.	All Causes	Sick
1	14.6	15.5	14.6	12.6	15.5	17.5	15.1	8.6
2	6.7	9.6	7.7	8.7	7.7	15.4	9.3	3.5
3	18.7	18.7	18.7	18.7	18.7	25.0	19.8	6.3
4	4.9	2.4	2.4	2.4	2.4	4.9	3.3	2.9
5	11.1	6.9	6.9	4.1	4.1	8.3	6.9	5.5
6	2.6	7.9	7.9	5.3	5.3	5.3	5.7	5.7
7	11.1	16.7	16.7	11.1	11.1	27.8	15.7	5.6
Total	9.7	10.5	9.7	8.4	9.1	13.7	10.1	5.6

Concerning absenteeism in this factory four observations can be made. First, daily absenteeism was highest on Saturdays and was relatively steady on the remaining days, except that it showed a tendency to fall on Thursday: moreover, increase on Saturday is particularly visible amongst female employees. Secondly, male absenteeism, with a daily average of 12.5%, was higher than female absenteeism which showed 8.7% of possible man days. Thirdly, absenteeism due to sickness showed a higher percentage for male than for female employees. The percentage of man-days lost due to sickness was 7.7% in the case of male employees whereas it was 4.3% in the case of female employees. Finally, a comparison based on percentages is unfavourable to the small departments. This is particularly the case with departments 3 and 7, and when comparing the remaining departments, differences in absenteeism figures can be seen, with department No. 1 showing the highest daily average for "all causes" as well as sickness absences.

At present only tentative explanations of these symptoms can be given. Thursday being the day before pay day, employees may then take the last chance to increase the week's income. On Saturday, women carry out most of their home responsibilities; this also being market day, other earning opportunities present themselves,

In other industries as well as in Factory No. 1 female absenteeism shows a tendency to be lower than male absenteeism. This is the reverse in many other countries.

The following percentages extracted from the 1943 Census indicate that women in industry and fields of employment which may be considered to comprise the same labour market are more prone to unemployment and underemployment than the men in the same labour market.

TABLE NO. 3

Occupation	Percentage of wage earners by occupations		Percentage distribution of wage earners classified according to length of employment during 1942					
			Unemployed		Employed 1-40 wks.		Employed 41 + wks.	
					Male	Female	Male	Female
All occupations	100	100	3	3	62	60	35	37
Manufacturing and Mechanical	8.2	3.2	5	4	48	50	47	46
Personal Service	5.6	53.0	2	5	35	51	63	44
Agriculture	45.4	24.7	1	2	71	80	28	18
Labourers, etc.	21.3	9.7	4	3	73	82	23	15

This fact and the higher labour turnover (see Table X) among women may lead to a greater feeling of insecurity of tenure and thus promote more regular attendance in the female labour force. The physical working conditions and the amenities provided by management do not seem to influence absenteeism rates in the various departments. Morale and the type of personnel in the departments may be of greater influence; sideline jobs and outside interests (e.g. sports) seem to be frequently the cause for absence from work amongst the men.

TABLE NO. 4. FACTORY NO. 2. — ABSENTEEISM.

Absenteeism for the total labour force for the period week ending 7 July, 1951 to week ending 7 November 1951							
Absentees No.	Days Lost No.		% Absentees per week of Labour Force.		Average time lost per absentee per wk.		Average time lost per employee per wk.
	Sick	Other Causes	Sick	Other Causes	Sick	Other Causes	All Causes
88	2	34.8	1½	4.7	0.1	3.98 days	0.19 days

In Factory No. 2 the indications are that there is a core of absentees—a fairly low percentage of absentees causes a more than normal loss of working days. Analysis by causes shows an outstandingly high figure of absences due to sickness.

Factories No. 3 and 4 (Tables Nos. 5 and 6) were chosen from the new industries. Both were medium-sized when compared with the other factories studied; occupations were in the semi-skilled class.

Factory No. 3 had an exclusively male and Factory No. 4 a predominantly female labour force. Payment of wages in Factory No. 3 was based on time rates; in Factory No. 4 it was based on task rates. Neither of the factories had sickness benefit schemes.

TABLE NO. 5. FACTORY NO. 3 — ABSENTEEISM.

Absenteeism for the total labour force for the periods week ending 6th January, 1951, to week ending 14th April 1951, and for the period week ending 10th November, 1951, to week ending 8th December, 1951.						
Period	Absentees per wk. expressed as a % of total labour force	Average time lost per absentee per wk.	No. of absences per absentee per week	Av. time lost per employee per wk.	No. of absences per employee per wk.	Average lengths of absence
15 wks.	31.8	1.6 days	1.1	0.51 days	0.36	1.4 days
5 wks.	31.1	1.7 "	1.2	0.54 "	0.37	1.5 "
Total	31.5	1.7 "	1.2	0.52 "	0.37	1.4 "

The 15-week period for Factory No. 3 was chosen as the time of building up the labour force of this new factory when production processes were fluctuating and labour was being trained. The second period represents a time when the size of the labour force and markets for the finished product were more settled and steadier. In this factory absenteeism was high during the whole period under review. A large number of absentees stayed away from work frequently.

TABLE NO. 6. FACTORY NO. 4 — ABSENTEEISM

Absenteeism for the total labour force for the period 21st Sept., 1951 to 12th December, 1951					
Absentees per week expressed as a % of total labour force	Average time lost per absentee per week	No. of absences per absentee per week	Average time lost per employee per week	No. of absences per employee per week	Average length of absence
4.12	3.1	1.0	0.13 days	0.04	3.1 days

In Factory No. 4 additional information was available regarding the late coming of workers during the period of twelve weeks 21/9/51-12/12/51. Nine workers came late on one or more than one occasion; this caused a total loss of 5½ working hours, resulting in an average of 38 minutes loss of working time per individual late comer. In Factory No. 4 a small number of persons stayed away from work for lengthy periods (average length of absence is over three days).

In most factories it was the foreman who was directly concerned with absenteeism. In twelve companies he alone interviewed returning absentees and in ten companies his superior (i.e. the man-

ager) showed interest in various degrees in this problem; in two factories arrangements were made to visit absentees in their homes. In three factories no arrangement had been made for interviewing. In one of these it was pointed out that a checking-in clock was installed at the entrance gate and the foreman held that his interviewing of returning absentees was therefore unnecessary.

Supervisors and managers pointed out the influence of the personal interests and leisure-time activities of employees on absenteeism. Sports events and side-line jobs were specifically mentioned as influences on total absenteeism in the plant and on absenteeism of individuals. In some factories, particularly in the tobacco industry, supervisors felt it was difficult to control the attendance of task workers. In one factory the co-operation of the trade union official was sought after and gained in an effort to reduce an existing core of absenteeism. A manager observed that absenteeism, which was usually high in his factory, was considerably reduced in times of seasonal underemployment. The fear of dismissal, the need to earn more money, the increase in free time available for outside factory activities, were contributory factors to this decrease in absenteeism. In some factories absentees were likely to lose their jobs while absent. In a few cases absentees tried to prevent this by sending a message to their foreman, stating the expected length of absence. Only one foreman mentioned that the cause of absence was given. In one firm employees sent substitute workers for the duration of their absence.

LABOUR TURNOVER.

Labour turnover is measured as the average number of workers in a month leaving of their own accord or discharged from their place of employment expressed as a percentage of the total number of workers employed there on a monthly average for the period of enquiry.

A certain amount of labour turnover is advantageous from the point of view of the national labour market and the individual firm. To the country it ensures the advantage of labour mobility, and the industrial unit can bring in new blood and eliminate the inefficient and undisciplined workers. Transfers from one department to another are really a form of labour turnover, especially when considered from a training point of view. They prevent staleness amongst the labour force in the department, make better placement of workers possible and widen the field for promotion of employees. Transfers have the advantage over discharges in that the investment of any previous training given to the transferred individual is not lost to the firm. On the other hand, labour turnover above a cer-

tain amount is undesirable; it is a measure of industrial inefficiency. Besides the unsettling effect of too high a labour turnover among the labour force and such intangible but real effects as it has, for example, on morale, it increases the firm's costs—not only through higher administrative charges, but through the losses caused by absence of a worker until the leaver is replaced, by the cost of training of the new employee, by the lower output until the new worker is trained and by the increase of the accident rate when the proportion of inexperienced workers rises. Of course the effect of high labour turnover varies in intensity according to the relative incidence among different types of worker—that is, with the importance of the leavers in the production process and the value of the equipment tied up with the job.

There are certain unavoidable causes of labour turnover—death, retirement, illness or disablement from injury lasting beyond what would be called "absence." There are, however, preventible causes, and these include most of the reasons for employees' resignations. Management is always justified in regarding a large number of voluntary leavers as evidence of a possible dissatisfaction, or at any rate of the employees' willingness to believe that better employment is available elsewhere. When it is found necessary to discharge a considerable proportion of new entrants, management may well suspect that there are defects in selection, placement and training procedures.

The labour turnover figures available are tabulated in Table No. X; but it must be realized that in most cases casual employees were not included in the number of leavers, and there was little information about the reasons for resignations.

Labour turnover in the factories studied is low, which is a symptom typical of times of unemployment. The new industries had a much higher turnover than the older ones, probably as a result of the uncertainty both of the supply of raw materials and of the demand for the finished product, which increased the difficulties of planning in new industries, i.e. the production process and the size of the labour force. In addition, the smaller of the new factories showed a higher turnover than the larger; nor could this be ascribed simply to the effect of a small number of leavers in a small labour force, for while managers and supervisors in the larger organizations stressed the need for good selection prior to employment selection by elimination was frequently advocated as a good method by managers and foremen in the smaller concerns.

Firms employing workers of both sexes showed a higher labour turnover rate among female employees. The average labour turn-

over rate was 1.86% for women and 0.95% for men of the total labour force: percentages of the force by sexes were 2.87% for women and 2.17% for men (Table X).

Fluctuations in production processes have been found in most of the concerns studied. Fluctuations can be seasonal and are usually due to irregular supply of raw materials. Industries directly or indirectly dependent on agricultural produce belonged to this group, but fluctuations can be irregular as a result of erratic demand for the finished product. In this respect the column "Laid Off" does not give a complete picture. As has been mentioned above, casual employees were not included and it was this group of workers who felt first among all employees any such fluctuations in the process of production and in the size of the labour force. In one firm a director justified the existence of a high percentage of "casuals" in the labour force in his unit by stating that it originated during the war when suitable labour was scarce, that the final size of the plant could not yet be decided as the local market possibilities were not known, and that production fluctuates daily as orders fluctuate and stock piling is impracticable owing to lack of storage space. But considering the fact that the "casuals" force consisted of two groups, those on a daily pay contract and those on a weekly pay contract, with some employees on the firm's pay roll for several years, the three points mentioned above do not fully explain the existence of the large "casual" labour force.

It seemed to be general practice that trade unions investigated the circumstances of dismissal, for example, amongst temporary or casual employees less frequently than in the case of permanent employees, and some of the agreements between managements and trade unions specified either that various occupations and grades should be subject to particular contracts, or that a time-limit should be fixed for "temporary" employment (i.e., workers with a certain length of service were to be regarded as permanent).

With regard to seasonal and interrupted employment statistical data were obtained in two factories (Tables Nos. 7 and 8). Factory No. 1 was one of the older establishments and Factory No. 2 was one of the new firms.

The figures indicate that in these cases female labour turnover was higher when considered in relation to the sex distribution in the labour force or when considered in relation to the total force. Firm No. 1 experienced fluctuations in production; it was a fairly large unit, employing men and women. More workers were laid off than left for any other cause; 50% of all male leavers and 47.5% of all female leavers were laid off. The average length of employment for

TABLE NO. 7. FACTORY NO. 1.—LABOUR TURNOVER

	Leavers				
	Discharged	Own accord	Medical	Laid Off	Total
Monthly percentage of male leavers of male strength	1.3%	1.3%	0 %	2.5%	5.0%
Monthly percentage of female leavers of female strength	3.2%	0.4%	0.1%	3.5%	7.3%
	Male Leavers		Female Leavers		Total Leavers
Monthly leavers as a % of total labour force	1.4%		5.3%		6.6%

TABLE NO. 8. FACTORY No. 2.—LABOUR TURNOVER.

	Leavers				
	Discharged	Own accord	Laid Off	Total	
Monthly percentage of male leavers of male strength	0.0%	0.2%	0.0%	0.2%	
Monthly percentage of female leavers of female strength	0.1%	1.5%	0.0%	1.6%	
	Male Leavers	Female Leavers	Total		
Monthly leavers as a % of total labour force	0.0%	1.2%	1.3%		

male personnel laid off was 4.1 months and for female personnel 3.6 months: as the possible period of employment for seasonal engagements in this industry was eight months the labour turnover rate in this factory was not caused only by seasonal fluctuations in the labour force, although these were the major factors. The second factory was one of the young industrial units, where seasonal supply of raw materials caused a great deal of dislocation in its labour force. Management did not lay off workers by taking individual names off their books, but rather considered the labour force as spasmodically underemployed or unemployed. This policy did not have the desired effect—to maintain a stable and trained labour force. As the figures show, a labour turnover caused by voluntary resignations of the employees, especially the female workers, resulted.

In a third establishment more detailed information about the nature and degree of interrupted employment was available. Fluctuations in production over a period of four months with an average weekly labour force of 22.5 persons led to interruption of employment

for eleven individuals once or more than once. The aggregate total of possible employment of this group was 148 weeks (average length of possible employment per individual 13.5 weeks). Aggregate total of interruption in employment was 37 weeks, with an average period of interruption per individual of 3.4 weeks. This resulted in an average period of gainful employment per individual of 10.1 weeks. In addition to this group of eleven persons with interrupted employment, four men were laid off and not re-engaged; these were considered leavers. Their average length of employment was 4 weeks.

These three cases show the extent of short term employment. Information and data from three of the older factories throw light on the structure of their labour force in terms of length of service, and therefore on the low average labour turnover of the 25 factories.

Factory No. 4. In assessing training needs, transfers make further training necessary, and therefore length of service of employees in the departments was reviewed. The figures of 7½ years as the average length for male employees and 6½ years for female employees indicated a stable labour force in which transfers were made rather rarely, promotion possibilities within the department being relied upon.

Factory No. 5.—A low labour turnover rate resulted in a high average age amongst employees. In this case management thought that this had a detrimental effect on productivity.

TABLE NO. 9. FACTORY NO. 5.—EMPLOYEES' LENGTH OF SERVICE

	Lengths of employment			
	0-3 years	3-6 yrs.	6-9 yrs.	9 yrs. and over
Percentage of male labour force	0	33.3	44.4	22.3
Percentage of female labour force	0	47.3	21.1	31.6
Percentage of total labour force	0	42.8	28.6	28.6

The fact that no worker had been employed less than three years should reduce training problems and raise the level of knowledge and skill amongst the workers. However, it is possible that when 66.7% of the men and 52.7% of the women, making 57.2% of the total strength, had been employed for periods ranging from six to eighteen years, the high ages of some employees had a detrimental effect on efficiency.

The labour turnover in **Factory No. 6** was low, and confined to a small group of unskilled labourers; the rest of the labour force showed a similar structure with regard to age as marked Firm No. 5.

TABLE NO. 10. FACTORY NO. 6.—EMPLOYEES' LENGTH OF SERVICE

	Lengths of employment	
	2 yrs. or less	9 yrs. or more
Percentage of male labour force	14.7%	50.8%
Percentage of female labour force	0.0%	81.0%
Percentage of total labour force	7.8%	64.9%

Table No. XI gives the percentage distribution among the three main groups of reasons for termination, taking the total number of leavers by sex of each firm as 100. In the nine factories employing men and women, men accounted for 51.5% and women for 48.5% of all terminations. The difference was partly caused by the total absence of female leavers in three establishments, in two of which only a few women were employed, who were rather more carefully selected and trained. Men were more likely to be discharged and were more likely to leave of their own accord than women. The percentage of male discharges was 24.5% whereas the percentage for women was 22.1%; the respective figures of leavers of their own accord were men 58.5% and women 48.5%—the highest percentage for any individual cause. The chief reasons for discharges were theft, unsuitability due to inaptitude, and insubordination or lack of discipline. This points to a need for more careful screening and better selection of applicants for work as well as for an improved standard in the handling of personnel by all grades of supervision. There were two factories, one old and one new, which recorded no discharges, both being small units with a low skill level.

A feeling of restlessness in the employee, a desire to find more congenial or remunerative employment, accounted for most voluntary separations; such reasons were given by employees in various firms as finding a better job, going abroad, working for too low a wage, and starting businesses of their own. All these express dissatisfaction. Neither applicants for work nor interviewers seemed to see the need for detailed information about the job, with its duties and responsibilities, to be discussed before engagement, and misunderstanding was followed by disappointment, dissatisfaction, and eventually resignation. This might have been offset by a programme of orientation training. A worker seemed willing to start work in order to see what the job was like, and supervisors were willing to give the man a trial and a chance: the process was one of trial and error on both sides. The fact that voluntary resignations accounted for the highest percentage of terminations of employment, in spite of the known high degree of unemployment, illustrated an absence of fear and a spirit of optimism in the working population which was in other ways easily apparent to observers. One small establish-

ment had no voluntary resignations from employees. In this firm a spirit of co-operation between management and workers, as well as between workers, was readily noticed. Workers' interest in the job, in new machinery and the process of production, was fostered by management, which also took care in the selection and induction training of new employees.

Of all causes for terminations of employment, only laying-off showed a higher percentage for women than for men: 17% of the male leavers and 29.4% of female leavers were laid off. Fluctuations in production were more likely to be felt by the female labour force than by the male employees, since women were likely to be laid off first. Three old and three new factories did not lay off any workers; one new establishment laid off only from amongst its female labour force and two old firms laid off employees of both sexes.

Data shown in Table XI relating to factories employing men only, illustrate the fact that discharges accounted for the highest percentage of terminations and laying-off for the lowest. There was only one firm (one of the older ones) which had a well settled labour force with a very low labour turnover generally. It was interesting to note that voluntary resignations, with 34.7% of all terminations, took second place in this group of factories. One new firm had no resignations at all: conditions of employment and human relationships in this unit compare very favourably with those in other establishments. Six out of eight firms had no employees laid off; in the three old factories a steady level of production could be given as the cause; in the three new firms the relatively high level of skill among operators, and the short-term nature of fluctuations in production, caused interrupted employment rather than long-term laying off of employees.

TERMINATION PROCEDURES.

The procedures for termination of employment were fairly uniform in kind but varied in thoroughness. Although in seventeen firms arrangements were made for leavers to be interviewed, it was only in nine firms that the interviewer was a member of management not as directly involved in the issue of discharge or resignation as a charge hand or foreman. The period of notice given by the employers varied a good deal. Permanent employees received notice of termination of their employment in the majority of firms two weeks prior to the termination, but in three concerns this period was one week and in one firm it was four days. The period of notice given by employers to temporary employees, hourly paid workers, casual workers and task workers varied from one week in two factories and two days in one factory to no notice in all the other factories. The

Masters and Servants Law,^a Trade Union contracts, and custom were quoted by managers as their guides in this respect. Only in three firms were managers able to state that notice or warning was given by workers intending to leave; in the other establishments most workers who decided to leave merely stayed away from work without giving notice.

In summary, the data available point towards the occurrence of avoidable absenteeism and labour turnover. This was indicated in the case of absenteeism by the wide variation in the degree of absenteeism among the firms studied; by the influence of outside interests on absenteeism (e.g. side-line jobs or sports events) which indicates a lack of sense of responsibility towards the job among certain groups of employees; and by the extent to which fear of dismissal restrained absenteeism, which fell in times of seasonal under-employment, while female workers, who were the first to be laid off, showed a slightly lower degree of absenteeism than males throughout the year. The type of discipline, it might be inferred, did not always foster a co-operative spirit among employees.

Observation at least in one factory where figures were available, indicated that absenteeism on Saturday was higher than on any other day, particularly so among the women: the explanation may be that home responsibilities and other earning opportunities were the chief causes for absences on that day.

Absenteeism tended to be higher among workers paid by time rates than among workers paid by task rates: the problem was one of wages systems and their varying incentives values.

With regard to labour turnover, the effects of seasonal production processes were less than might be anticipated: of all causes for terminations of employment laying off showed the lowest percentage of all terminations and the predominance of voluntary resignations and discharges may be interpreted as pointing to weaknesses in the employment procedure, and in the criteria for selection for employment and training.

V

SUMMARY

The study was undertaken with the object of observing the patterns of recruiting and training developed in a selected group of in-

^a The Masters and Servants Law of Jamaica, Cap. 387, in Part I, Sec. 4 provides: "In the absence of any express agreement between the parties thereto to the contrary every contract for service shall be deemed and taken to be a contract for one month certain from the time of entering thereon and to be terminated only by mutual consent or by fifteen days' notice given at any time during the continuance of such service in writing, or in the presence of a credible witness, or for any good and sufficient cause as hereinafter provided."

dustrial organizations in Kingston. The survey was limited to twenty-five old and new establishments, selected chiefly on the criterion that the majority of employees were of the semi-skilled and unskilled categories.

Recruitment was considered as the activity of management designed to attract persons to apply to the company for remunerative employment; training as the adaptation of workers for employment in respect to the total environment of the job as well as to the necessary specific skills. These processes, along with selection and induction, constitute some of the preliminary responsibilities which management has to assume, in co-operation with the worker, in the attempt to build up and maintain an industrial labour force.

While the study has resulted chiefly in the recording of managerial experiences, an attempt has been made, through evaluation and organization of the material, to reduce the element of bias in favour of management to the minimum. Organized and pertinent information was available chiefly through managerial personnel. Interviews with experienced workers, trainees, and particularly representatives of trade union organizations provided additional information, which aided substantially the attempt to achieve objectivity.

The paper was confined to the rather limited problems within the individual factory organization. These problems are linked with changes taking place in Jamaican society and economy: indeed, specific problems of industry cannot be finally elucidated without a knowledge of these broad changes, which cannot be grasped without going outside the factory. The internal problems of industry are conditioned by legal and political circumstances, by history and institutions, by the rate and methods of technical progress, by mentalities and habits: but to examine these, or all the forces that affect personnel problems, would be to describe Jamaican society as a whole. The following pages summarize the main observations made in the 25 factories studied: they are intended to indicate the chief problems and to give some guidance on possible methods of approach to those problems. The study suggests that further investigation and collection of factual data will be necessary if the planning of future training is to have a proper basis of knowledge: some possible fields of enquiry have been indicated.

Recruitment of labour was facilitated by the ample labour supply in Kingston during the period under observation. The foremen or departments were the central figures in recruitment procedures. The methods used were remarkably uniform and did not correspond to the variation in conditions between factories. In recruitment for

supervisory posts, workers on the floor were often considered. In some instances, notably where it was felt that the necessary educational or technical qualification or supervisory experience was greater than that generally found among the workers, recruitment was done outside the plant. Women were seldom promoted to supervisory posts.

Selection was based chiefly on the rough total impression which the candidate made on the selecting officer at an interview. There was no systematic assessment of the job and its requirements. Selection was all too frequently made by elimination of the unsuitable after engagement and the need for research and experimentation in methods of selection has been indicated. The need for the setting up of more exact minimum and maximum standards and the development of standard criteria for selection is clear. The recording of interviews and findings, coupled with records of successes and failures among placed employees, should prove useful for experiments and the further development of selection methods and techniques. The training of selection officers in the techniques of interviewing is indicated. The need for improved selection procedures and methods was emphasized by the high incidence of absenteeism in some factories, where it was suggested that home responsibilities and activities outside working hours were significant. The labour turnover statistics also drew attention to the need for better selection.

In the case of supervisors, selection was found to be the responsibility of managers. But in many cases the foreman's role was an important one: he recommended candidates for the post and frequently allocated the duties of an assistant foreman to an operative in his department prior to the official appointment of this individual to the post. In such an instance the manager's appointment was a formal confirmation of the foreman's selection. In order to achieve a better matching of job requirements and selection criteria, a better recognition of supervisors' activities in the fields of administration and human relations is desirable; and if the trainability of the candidates were given a higher degree of importance among selection criteria, managers would probably find it easier to improve the quality of supervision.

With regard to induction of new employees, some tentative experiments had been made, which demonstrated the ready responsiveness of workers, and stimulus that could be given to the workers' interest in his task and sense of responsibility with regard to the product: in fact, there was a definite improvement in labour relations and a reduction of supervisory problems. Induction methods in most factories, however, tended to lack co-ordination: perhaps be-

cause induction was regarded as a mere appendix to selection rather than as an opening phase of training, in which flexibility of method is needed to meet the needs of various classes of new employees.

With regard to job training, the acquiring of knowledge and skills was generally considered a concern of the worker. Management's participation was kept at a minimum in most of the industries; it often consisted of the provision of materials and tools, and of supervision of the trainee's progress. Training was given by volunteer experienced workers who decided on the content as well as methods of training. Statements by managerial staffs and observations were supported by statistical data in showing areas of weakness in training, experiments with, or the introduction of training methods in some of the concerns, with results satisfactory to management, and the positive response received from the workers, were noted. Absence of programmes for systematic training and of trained instructors was observed; this generally resulting in inadequate instruction in job content and job method. Neglect of the parts of training concerned with the developing of a sense of responsibility towards the job and the imparting of an adequate knowledge of working standards required was noted. The high standard in work performance achieved by the outstanding operatives, and the frequency of satisfactory results in cases where care and thought had been given to training, indicate the potential trainability of industrial recruits. Refresher training was rarely provided. It was left to the employee to maintain standards or to learn any changes introduced in his duties. It seems that in industries with a low labour turnover and a high average length of service among employees management might find refresher courses particularly useful.

In four out of the twenty-five plants studied five persons were found who were considered managerial trainees. Altogether nine organizations recognised the need for training supervisory personnel, "if the time was available," before the individual was expected to carry out the duties of the job. Training was by the understudy method and the training period relatively short. The context of training was usually decided upon by the trainer, and there was heavy concentration on technical questions as against human relations and administration, although these were involved to a considerable extent in the duties performed by supervisors (particularly departmental foremen). An extension and intensification of supervisors' training in industry is indicated.

Government activity in recent years and the report made by a Mission of the International Bank for Reconstruction and Development provide substantial information regarding needs of training

in terms of economic development. The plans of extension in agricultural as well as industrial activities imply an increase in the labour force in primary and secondary industries by approximately 68,000 persons. In addition the report emphasized that education and training should play an important role in the improvement of agricultural practices and in increasing industrial efficiency and productivity. The report stated (p. 147) "... further improvement in education appears most urgent and most directly related to the development of the productive capacity of the country. Expansion of facilities for vocational and technical education is particularly important." The emphasis now being placed on introduction of new industries and techniques in economically underdeveloped territories indicates the great need for training for industry. The problem of satisfying the needs assumes regional proportions. The fifth session of the Caribbean Conference held in Jamaica in November, 1952, had vocational education and training as its primary theme. Resolutions passed by the Caribbean Conference recommended to the governmental authorities served by the Caribbean Commission procedures for the establishment and improvement of pre-vocational training schemes and guidance services.

Recommendation No. 50 of the Conference stressed that training schemes should preferably be the joint responsibility of industry, labour and Government, and urged territorial governments to ensure the participation of employers, workers and governmental authorities in the management of apprenticeship schemes. This and other recommendations of the Conference indicated that it is now strongly felt that it is urgently necessary to pool all available resources in the planning of vocational education and training for economic development.

BIBLIOGRAPHY

1. Report of the Apprenticeship Committee, (1943), Government Printer, Kingston.
2. BARTLETT, F. C. (1948), 'The Measurement of Human Skill' *Occupational Psychology*, XXII, 1 and 2, National Institute of Industrial Psychology, London.
3. BELLOWS, R. M. (1949), *Psychology of Personnel in Business and Industry*, Prentice Hall, Inc., New York.
4. BOWEN, W. C. (Jan., 1939), 'Essentials of a Placement Programme'; *Personnel Administration*, Washington, D.C.
5. BRYT, W. J. (Dec., 1948, & June, 1949), 'Some Facts on Labour Turnover', *Bulletin of Industrial Psychology and Personnel Practice*, Dept. of Labour, Commonwealth of Australia.
6. BRYT, W. J. (Sept., 1951), 'Why Measure Labour Turnover?' *Bulletin of Industrial Psychology and Personnel Practice*, Dept. of Labour, Commonwealth of Australia.
7. CAHOON, R. P. (1949), *Problems in Personnel Administration*, Harper and Brothers, New York.
8. Central Bureau of Statistics, Jamaica, *Census of Jamaica and its Dependencies*, (1943), Government Printer, Kingston.

9. Central Bureau of Statistics, Jamaica, (June, 1950 and Dec., 1951); *Quarterly Digest of Statistics*, Government Printer, Kingston.
10. Annual Report of Education Department, Jamaica (1950), Government Printer, Kingston.
11. *Factory Law* (No. 43 of 1940), Jamaica, Government Printer, Kingston.
12. HADLEY, C. V. D., *Culture & Personality*, Human Relations II, No. 4.
13. HOVLAND, C. I., and WONDERLIC, E. F. (Oct., 1939); 'Prediction of Industrial Success from a Standardized Interview', *Journal of Applied Psychology*, Ohio University, U.S.
14. Institute of Personnel Management (n.d.), *Training for Industrial Employment*, London.
15. Institute of Personnel Management (n.d.), *Selection and Placement*, London.
16. International Bank for Reconstruction and Development (1952), *The Economic Development of Jamaica*, Johns Hopkins Press, Baltimore.
17. International Labour Office, Geneva (1948), *Vocational Training of Adults in the United Kingdom*.
18. International Labour Office, Geneva (1950), *Vocational Training Organization in Switzerland*.
19. International Labour Office, Geneva (1952), *Labour Policies in the West Indies*.
20. LEWIS, W. A. (1949), 'Industrial Development in Puerto Rico', *Caribbean Economic Review* I, 1, 2.
21. LEWIS, W. A. (1950), 'Industrialization of the British West Indies', *Caribbean Economic Review*, II, 1.
22. *Masters and Servants Law* (Cap. 387 of the Laws of Jamaica), Government Printer, Kingston.
23. Medical Services of Jamaica, Annual Report, (1951), Kingston, Government Printer.
24. *Minimum Wage Law of Jamaica* (No. 31 of 1938), Government Printer, Kingston.
25. MORGAN, H. K. (1945), *Industrial Training and Testing*, McGraw Hill, N.Y.
26. NORTHCOTT, C. H. (1947), *African Labour Efficiency Survey*, H.M.S.O., Colonial Research Publications No. 3.
27. ORDE BROWNE, MAJOR G. St. J. (1939), *Labour Conditions in the West Indies*, H.M.S.O., Cmd. 6070, London.
28. PHELAN, B. K. (March, 1949), 'The Financial Effects of Labour Turnover', *Bulletin of Industrial Psychology and Personnel Practice*, Dept. of Labour, Commonwealth of Australia.
29. *Pioneer Industries (Encouragement) Law* (1949), Government Printer, Kingston.
30. *Public Health Law* (Cap. 71 of Laws of Jamaica), Government Printer, Kingston.
31. ROTTENBERG, S. (Dec., 1952), 'Labour Relations in an Under-developed Economy', *Economic Development and Cultural Change*, University of Chicago, Research Centre.
32. SEYMOUR, W. D. (July, 1949), 'Recent Developments in Operative Training', *Journal of Institute of Personnel Management*, London.
33. SHISTER, JOSEPH (1949), *Economics of the Labour Market*, J. S. Lippincott, N.Y.
34. SIMEY, T. S., (1946), *Welfare and Planning in the West Indies*, Oxford; Clarendon Press.
35. SPRATLING, F. H., and LLOYD, F. J. (1951) 'Personnel Statistics and Sickness Absence Statistics', *Journal of Institute of Public Administration*, X and IX., London.
36. State of Louisiana, U.S. Dept. of Labour, (Dec., 1949), *Instructor's Guide for Orientation Training*.
37. Technical Education Exploratory Committee, (1949), Government Printer, Kingston.

38. U
L
39. U
M
40. U
M
41. U
J
42. V
43. V
44. V
J
45. V
J
(
ass
fir
obs
or
app
lea
thr
str
Eco
wo
the
Ag
5-1
5
6
7
8
9
10
11
12
13
14

38. United Nations, Dept. of Economic Affairs (1951), *Measures for the Economic Development of Under-Developed Countries*; N.Y.
39. United Nations, Technical Assistance Administration (1951), *Report of the U.N. Mission of Technical Assistance to Bolivia*, N.Y.
40. United Nations, Technical Assistance Administration (1951), *Report of the U.N. Mission of Technical Assistance to the Republic of Haiti*, N.Y.
41. UYTENDHOFF, A. (1951), 'Some Aspects of Industrial Injury Prevention', *International Labour Review*, I.L.O., Geneva.
42. VITELES, M. S. (1932), *Industrial Psychology*, W. W. Norton & Co. Inc., N.Y.
43. West India Royal Commission Report (1945), H.M.S.O., Cmd. 6607, London.
44. West India Conference (5th Session, 1953), *Caribbean Commission Monthly Bulletin*, Vol. 6., No. 6.
45. WICKHAM, O. P. (Dec., 1948), 'How Effective is on-the-job Training?' *Bulletin of Industrial Psychology and Personnel Practice*, Dept. of Labour, Commonwealth of Australia.

ACKNOWLEDGEMENTS

This study could not have been carried out without generous assistance of a large number of persons and organizations. To the 25 firms in which this survey was made I am specially indebted. The observations made are not meant as an adverse criticism of the policies or staff of these concerns, who by their co-operation indicated their appreciation of the problems. The workers and their Trade Union leaders have equally been patient and co-operative.

Dr. Simon Rottenberg and Miss E. B. Sharpe have kindly read through the paper and have made many very valuable and constructive suggestions. My colleagues at the Institute of Social and Economic Research have made an invaluable contribution to this work. Mr. Eric James has helped generously in the preparation of the material for publication.

APPENDIX

TABLE I. DISTRIBUTION OF SCHOOL AGE POPULATION.

Age	Numbers								
	Population 5 - 14			At School ^a			Percentage at School		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
5-14	295,921	148,565	147,356	196,562	96,011	100,551	66.42	64.63	68.24
5	30,854	15,711	15,143	2,697	1,321	1,376	8.74	8.40	9.08
6	30,548	15,156	15,392	4,873	2,248	2,625	15.95	14.83	17.05
7	34,806	17,422	17,384	19,552	9,466	10,086	56.49	54.33	58.69
8	30,632	15,157	15,475	24,963	12,072	12,891	81.49	79.64	83.30
9	29,439	14,779	14,660	25,763	12,694	13,069	87.51	85.89	89.14
10	29,935	15,117	14,818	26,711	13,186	13,525	89.22	87.22	91.27
11	25,571	12,797	12,774	23,196	11,393	11,803	90.71	89.02	92.39
12	34,291	17,415	16,876	30,309	14,998	15,311	88.38	86.12	90.72
13	26,386	13,120	13,266	23,071	11,197	11,874	87.43	85.34	89.50
14	23,659	11,891	11,768	15,427	7,436	7,991	65.20	62.53	67.90

Source: Census of Jamaica and Dependencies, 1943.

^a "At school" means children who were attending school during the period September to December, 1942.

TABLE II. STANDARD OF EDUCATION OF THE POPULATION BY AGE AND SEX

Standard of Education		Ages 10-24 years		Ages 25 years and over	
		Number	Percent	Number	Percent
All Standards	T	370,921	100.0	549,817	100.0
	M	178,517	100.0	261,246	100.0
	F	192,404	100.0	288,571	100.0
Never Attended School	T	59,844	16.1	158,283	28.8
	M	35,487	19.9	80,700	30.9
	F	24,357	12.6	77,583	26.9
Elementary Lower	T	60,298	16.3	60,677	11.0
	M	31,692	17.8	28,824	11.0
	F	28,606	14.9	31,853	11.0
Elementary Middle	T	104,637	28.2	129,678	23.6
	M	49,593	27.8	59,532	22.8
	F	55,044	28.6	70,146	24.3
Elementary Upper	T	131,482	35.5	175,094	31.8
	M	55,044	30.8	79,609	30.5
	F	76,438	39.7	95,485	33.1
Practical Training	T	3,841	1.0	4,943	0.9
	M	1,801	1.0	2,530	1.0
	F	2,040	1.1	2,413	0.8
Secondary Lower	T	6,807	1.8	7,727	1.4
	M	2,976	1.7	3,241	1.2
	F	3,831	2.0	4,486	1.6
Secondary Upper	T	3,300	0.9	7,704	1.4
	M	1,629	0.9	3,647	1.4
	F	1,671	0.9	4,057	1.4
Pre-Professional	T	662	0.2	3,763	0.7
	M	266	0.1	1,637	0.6
	F	396	0.2	2,126	0.7
Professional	T	50	—	1,948	0.4
	M	29	—	1,526	0.6
	F	21	—	422	0.2

Source: Census of Jamaica and Dependencies, 1943.

Note: **Standards of Education**

Elementary Lower — This standard included those who were in or had finished their education in an Infant School, or in Class 1 or 2 of an Elementary School.

Elementary Middle — For those who were in or had left school in the Third or Fourth Class.

Elementary Upper — In this standard were included persons who were in or who had left school in the fifth or sixth class.

Practical Training — All commercial students who had completed a course in stenography or book-keeping as special courses or those who had passed through a technical, industrial or practical training school, were considered as having attained this standard of education.

Secondary Lower — This standard was reported for those who had attended a Secondary School but had only reached approximately the fourth form.

Secondary Upper — This standard was given those who had completed their School Certificate or Matriculation Examination, or had reached the Fifth or Sixth form of a secondary school.

Pre-Professional — This standard applied to those whose educational attainment was approximately equal to that of an intermediate candidate of any professional body such as Accountancy, Law, Arts and Science, etc. A Cambridge Higher School Certificate was regarded as the equivalent of an intermediate examination.

Professional — Included in this group were doctors, lawyers, chartered or certified accountants and persons with degrees.

TABLE III. GAINFULLY OCCUPIED POPULATION CLASSIFIED ACCORDING TO OCCUPATIONAL, EMPLOYMENT STATUS, AND SEX, BY LITERACY AND STANDARD OF EDUCATION; FOR JAMAICA, 4TH JANUARY, 1943.

Occupation and Status	L I T E R A C Y			S T A N D A R D O F E D U C A T I O N									
	Total	Read & Write Only	Illit- erate	Not Specified	Elementary			Prac. Training	Secondary			Pre-Pro- fessional	
					Total	Lower	Middle	Upper	Lower	Upper	Upper	Lower	Upper
All occupa- tions	T 505,092	360,307	10,495	133,913	377	336,997	46,700	119,476	170,821	5,202	6,308	6,744	3,378
	M 321,637	222,000	6,706	92,674	257	207,793	30,623	74,305	102,865	3,142	3,848	4,207	1,584
	F 185,455	138,307	3,789	41,239	120	129,204	16,077	45,171	67,956	2,060	2,460	2,537	1,794
All wage earners & unpaid workers	T 331,050	230,918	6,723	93,171	238	213,274	31,247	76,569	105,458	3,855	4,940	5,198	2,852
	M 203,358	136,971	4,103	62,125	159	126,534	19,594	44,950	61,990	2,348	2,952	3,327	1,204
	F 127,692	93,947	2,620	31,046	79	86,740	11,653	31,619	43,468	1,507	1,988	1,871	1,648
Wage earners & unpaid Workers (Manufac- turing & mechan- ical occu- pations)	T 19,521	17,906	188	1,417	10	16,798	1,004	3,842	11,952	505	389	175	27
	M 15,432	13,924	167	1,332	9	13,018	881	3,194	8,943	415	303	153	23
	F 4,089	3,982	21	85	1	3,780	123	648	3,009	90	86	22	4

Source: Census of Jamaica and Dependents, 1943.

Note: Gainfully occupied—includes all persons who pursue an occupation to earn money or to perform a service or to assist with the production of goods. It excludes children working at home and women doing household work in their own homes. It includes employers, own account workers, wage earners and unpaid family workers, whether employed or unemployed at the time of the census.

Standards of Education — See footnote Table No. II.

TABLE IV. LABOUR FORCE — JAMAICA 1943

Age Group	Male	Female	Total
Experienced Labour			
14 & under	2,840	1,972	
15 - 17	15,419	11,448	
18 - 19	15,772	11,717	
20 - 24	45,527	31,326	
25 - 29	47,107	28,562	
30 - 34	44,332	22,789	
35 - 39	37,984	18,934	
40 - 49	56,940	27,702	
50 - 59	30,724	16,805	
60 - 69	17,400	8,575	
70 -	7,493	3,572	
Not Specified	99	53	505,092
Inexperienced Labour			
15 - 19	14,154	20,052	
20 - 24	5,768	10,554	
Not Specified	1,766	1,862	54,156
			559,248

Source: Census of Jamaica and Dependencies, 1943.

Note:

Inexperienced Labour Force: Persons who had not up to the time of the Census, been employed even although they were desirous of obtaining employment.

Experienced: All gainfully occupied (including the unemployed).

TABLE V. THE LABOUR FORCE OF THE 25 FACTORIES AT THE TIME OF STUDY

	M A L E & F E M A L E					M A L E					F E M A L E										
	Y P	S K	SSK	USK	ANC	SUP	Total	Y P	S K	SSK	USK	ANC	SUP	Total	Y P	S K	SSK	USK	ANC	SUP	Total
Old Industries																					
Tobacco	2	433	391	456	80	66	1,428	2	135	112	149	56	63	517	—	298	279	307	24	3	911
Bread & Biscuits	2	159	57	98	3	32	351	2	159	57	95	3	32	348	0	0	0	3	—	0	3
Aerated Waters,)																					
Wines, Confection-)																					
ery, other Veg.)	—	29	168	480	—	57	734	—	29	145	305	—	57	536	—	—	23	175	—	—	198
products)																					
Misc. Products)																					
Leather, Cement)	5	12	95	235	4	17	368	3	12	70	79	2	17	183	2	0	25	156	2	0	185
Tiles, Wood)																					
Total	9	633	711	1,269	87	172	2,881	7	335	384	628	61	169	1,584	2	298	327	641	26	3	1,297
New Industries																					
Food	2	15	253	159	13	19	461	2	15	42	54	5	17	135	—	—	211	105	8	2	326
Wood	0	5	30	28	2	8	73	0	5	30	28	0	8	71	—	—	—	—	2	—	2
Textiles	—	1	7	7	—	3	18	—	1	1	1	—	1	4	—	—	6	6	—	2	14
Cement	—	32	78	51	9	15	185	—	32	78	44	5	15	174	—	—	—	7	4	—	11
Miscellaneous	—	1	27	—	3	4	35	—	1	15	—	—	4	20	—	—	12	—	3	—	15
Total	2	54	395	245	27	49	772	2	54	166	127	10	45	404	—	—	229	118	17	4	368
GRAND TOTAL	11	687	1,106	1,514	114	221	3,653	9	389	550	755	71	214	1,988	2	298	556	759	43	7	1,665

TABLE V (continued): GENERAL DISTRIBUTION OF LABOUR FORCE (PER CENT) BY CLASSIFICATION OF LABOUR

	M A L E & F E M A L E					M A L E					F E M A L E										
	Y P	S K	S S K	U S K	A N C	S U P	T o t a l	Y P	S K	S S K	U S K	A N C	S U P	T o t a l	Y P	S K	S S K	U S K	A N C	S U P	T o t a l
Old Industries	0.3	21.9	24.7	44.0	3.0	6.0	99.9	0.4	21.1	24.2	39.7	3.9	10.7	100.0	0.2	23.0	25.2	49.4	2.0	0.2	100.0
Tobacco	0.2	30.3	27.4	31.9	5.6	4.6	100.0	0.4	26.1	21.7	28.8	10.8	12.2	100.0	—	32.7	30.6	33.7	2.7	0.3	100.0
Bread & Biscuits	0.6	45.3	16.2	27.9	0.9	9.1	100.0	0.6	45.7	16.4	27.3	0.8	9.2	100.0	—	—	—	100.0	—	—	100.0
Aerated Waters etc.	—	3.9	22.9	65.4	—	7.8	100.0	—	5.4	27.1	56.9	—	10.6	100.0	—	—	11.6	88.4	—	—	100.0
Misc. Products	1.3	3.3	25.8	63.9	1.1	4.6	100.0	1.6	6.6	38.3	43.2	1.0	9.3	100.0	1.1	—	13.5	84.3	1.1	—	100.0
New Industries	0.3	6.9	51.2	31.8	3.5	6.3	100.0	0.5	13.4	41.1	31.4	2.5	11.1	100.0	—	—	62.2	32.1	4.6	1.1	100.0
Food	0.4	3.3	54.9	34.5	2.8	4.1	100.0	1.5	11.1	31.1	40.0	3.7	12.6	100.0	—	—	64.7	32.2	2.5	0.6	100.0
Wood	—	6.8	41.1	38.4	2.8	10.9	100.0	—	7.0	42.3	39.4	—	11.3	100.0	—	—	—	100.0	—	—	100.0
Textiles	—	5.5	38.9	38.9	—	16.7	100.0	—	25.0	25.0	25.0	—	25.0	100.0	—	—	42.9	42.8	—	14.3	100.0
Cement	—	17.3	42.2	27.5	4.9	8.1	100.0	—	18.4	44.8	25.3	2.9	8.6	100.0	—	—	—	63.6	36.4	—	100.0
Misc. Products	—	2.8	77.3	—	8.6	11.4	100.1	—	5.0	75.0	—	—	20.0	100.0	—	—	80.0	—	20.0	—	100.0
TOTAL	0.3	18.8	30.3	41.4	3.2	6.0	100.0	0.5	19.6	27.6	38.0	3.5	10.8	100.0	0.1	17.9	33.4	45.6	2.6	0.4	100.0

Notes: YP — includes any employee below the age of 18 years.

SK — includes tradesmen and craftsmen or workers in occupations at similar skill levels.

SSK — includes machine operators and workers in occupations at similar skill levels.

USK — labourers and workers in occupations below the SSK.

ANC — means ancillary labour, not directly engaged on the production process, e.g., office staff, laboratory staff, gardeners, watchmen.

SUP — means supervisory staff. Any person in charge of others, e.g. manager, charge hand.

Old Industries—Established before 1948.

New Industries—Established 1948 or later.

TABLE VI. FACTORY REGISTER DECEMBER 1951 — EXTRACT

INDUSTRY	No. of Estab- lishments	N u m b e r E m p l o y e d								Grand Total
		Adults		Young Persons		Apprentices		Total		
		Male	Female	Male	Female	Male	Female	Male	Female	
VEGETABLE PRODUCTS:										
Tobacco, cigar)	3	404	1,003	—	—	—	—	404	1,003	1,407
Cigarettes)	56	931	145	—	—	4	—	935	145	1,080
Bread, Biscuits)										
Aerated & Mineral)	23	630	283	—	—	1	—	631	283	914
Water, Syrups, Wines)	1	51	105	—	—	—	—	51	105	156
Confectionery)	9	150	321	4	—	—	—	154	321	475
Fruit Canning)	2	33	18	—	—	—	—	33	18	51
Cocoa)										
LEATHER PRODUCTS:										
Tanning)	8	78	6	—	—	4	—	82	6	88
CHEMICAL PRODUCTS:										
Soap & Toilet preparations)	3	363	131	—	—	—	—	363	131	494
Other chemical products)	6	131	240	—	—	—	—	131	240	371
WOOD & PAPER PRODUCTS:										
Saw and planing)										
mills, boxes, barrels)	26	324	1	—	—	32	—	356	1	357
Woodworking)										
Other wood & paper)	6	50	25	—	—	7	—	57	25	82
products)										
TEXTILES:										
Garment making)	19	168	966	—	—	6	10	174	976	1,150
MISCELLANEOUS PRODUCTS:										
Tiles, Cement, etc.)	9	187	28	—	—	4	—	191	28	219
OTHER MISCELLANEOUS PRODUCTS:										
Neon-lighting, etc.)	2	12	7	—	—	4	—	16	8	24
metal boxes, etc.)										
	173	3,512	3,279	4	—	62	11	3,578	3,290	6,868

Note: Factory means any premises wherein or within the close or curtilage or precincts of which steam, electric power or other mechanical power is used in aid of any industrial or manufacturing process carried on therein for gain.
A Young Person is a person below 18 years of age.

TABLE VII. NUMBER OF JAMAICAN STUDENTS PURSUING SELECTED COURSES OF STUDY IN THE BRITISH ISLES AS AT 1ST JAN. 1951

	Scholars	Private	Total
Art and Craft	-	3	3
Building	5	1	6
Engineering			
Aero-Engineering	0	1	1
Civil "	3	-	3
Electric "	9	2	11
Engineering	2	-	2
Hydraulics	1	-	1
Glass-Blowing	1	-	1
	21	7	28

Source: The Secretariat, Government of Jamaica.

TABLE VIII. ABSENTEEISM

INDUSTRIES	Period of Observation	Sex distribution in labour force	Predominant system of remuneration	W	U	V
OLD INDUSTRIES:						
Tobacco Industry:						
Factory No. 1	28 weeks	M & F	Task Rates	3.54	2.14	1.65
Bakeries:						
Factory No. 1	4 "	M	Time Rates	1.64	—	—
do. No. 2	18 "	M	" "	3.43	—	—
do. No. 3	39 "	M	" "	1.54	—	—
Food Industry:						
Factory No. 1	4 "	M & F	" "	3.67	—	—
do. No. 2	12 "	M & F	" "	2.84	—	—
do. No. 3	4 "	M & F	Time & Bonus	2.35	—	—
do. No. 4	4 "	M & F	Time Rates	3.19	—	—
Miscellaneous Industries:						
Factory No. 2	12 "	M & F	Piece & Bonus	2.71	1.14	2.39
do. No. 3	4 "	M	Task Rates	6.20	3.03	2.05
NEW INDUSTRIES:						
Wood Industry:						
Factory No. 1	10 weeks	M	Time Rates	2.67	3.15	0.85
do. No. 2	15 "	M	" "	9.24	6.57	1.41
Production of Building Material:						
Factory No. 1	13 "	M	" "	4.84	2.12	2.28
Food Industry:						
Factory No. 1	39 "	Predominantly M	" "	4.37	1.90	2.31
Misc. Industries:						
Factory No.	12 "	Predominantly F	Task Rates	2.32	0.76	3.06
$U = \frac{a}{5.5xE} \qquad V = \frac{D}{a} \qquad W = \frac{D}{5.5xE}$						

Where E is the average labour force over x weeks

a is the total number of separate absences over x weeks

D is the total number of man-days work lost over x weeks through absence.

The average working week is taken to be 5½ days

A factory given a number on this table retains the same number on Tables IX and X.

TABLE IX. ABSENTEEISM

INDUSTRIES	Period of observatton	Sex distri bution in labour force	Predominant system of remunera- tion	w	u	v
OLD INDUSTRIES:						
Tobacco Industry:						
Factory No. 1	28 weeks	M & F	Task Rates	0.94	0.54	1.75
Bakeries						
Factory No. 2	18 weeks	M	Time Rates	0.91	0.66	1.38
Food Industry						
Factory No. 2	12 weeks	M & F	" "	0.78	0.67	1.12
Misc. Industries						
Factory No. 3	4 weeks	M	Task Rates	1.64	2.12	0.78
NEW INDUSTRIES:						
Wood Industry						
Factory No. 1	10 weeks	M	Time Rates	0.71	2.34	0.30
Factory No. 2	15 weeks	M	" "	2.45	4.29	0.57
Production of Building Materials						
Factory No. 1	13 weeks	M	" "	1.28	1.54	0.83
Misc. Industries						
Factory No. 1	12 weeks	Predomi- nantly F	Task Rates	0.61	0.56	1.09

$$u = \frac{A}{xE} \frac{S}{SA}$$

$$u = \frac{D}{A} \frac{SA}{SD}$$

$$w = \frac{D}{xE} \frac{SxE}{SD}$$

Where E is the average labour force over x weeks
D is the total number of man-days work lost over x weeks through
absence
A is the number of workers having one or more absences in one
week over the whole period of observation
S denotes the summation over all firms.
The average working week is taken to be 5½ days.

TABLE NO. X. LABOUR TURNOVER

INDUSTRY	L.T. per month as a per- centage of total labour force			L.T. per month as percentage of male & female labour force			Remarks
	M	F	T	M	F		
OLD INDUSTRIES							
Tobacco Industry:							
Factory No. 1	0.22	0.57	0.79	0.50	0.99		
do. No. 2	1.28	1.15	2.43	3.45	1.83		
do. No. 3	1.38	5.28	6.64	5.00	7.26		
Bakeries							
Factory No. 1	0.97	—	0.97	—	—		Male employees only
do. No. 2	4.67	—	4.67	4.67	—		Male employees only
do. No. 3	0.64	—	0.64	0.64	—		Data by sexes not available
Food Industry							
Factory No. 1	—	—	0.77	0	—		Data by sexes not available
do. No. 2	—	—	0.36	—	—		Data by sexes not available
do. No. 3	0.3	Nil	0.30	0.93	Nil		Data by sexes not available
do. No. 4	—	—	0.41	—	—		Male employees, only
Misc. Industries							
Factory No. 1	0.74	—	0.74	0.74	—		
do. No. 2	3.48	Nil	3.48	5.20	Nil		
NEW INDUSTRIES							
Wood Industries							
Factory No. 1	15.28	—	15.28	15.28	—		Male employees only
do. No. 2	8.16	—	8.16	8.16	—		Male employees only
do. No. 3	2.27	—	2.27	2.27	—		Male employees only
Production of Building Materials							
do. No. 1	1.21	—	1.21	1.21	—		Male employees only
do. No. 2	0.49	Nil	0.49	0.61	Nil		
Food Industry							
Factory No. 1	0.77	0.77	1.53	0.92	4.44		Predominantly male
do. No. 2	0.04	1.22	1.25	0.18	1.58		
do. No. 1	0.56	7.78	8.33	2.78	9.73		Predominantly female
do. No. 2	—	—	4.06	—	—		Data by sexes not available
Average monthly L.T. rate factories with employees of both sexes							
	0.95	1.86	2.80	2.17	2.87		
Average monthly L.T. rate factories with male employees only							
	4.24	—	4.24	4.24	—		

TABLE NO. XI. CAUSES FOR TERMINATION OF EMPLOYMENT

"THE BURNING FOUNTAIN WHENCE IT CAME"

(A study^a of the system of beliefs of the Carib-speaking
Akawaio of British Guiana.)

BY

AUDREY J. BUTT

The Carib Tribes

The true Caribs, who inhabited the regions of the Orinoco and many of the West Indian Islands at the time of the discovery of the New World, are now nearly extinct. Of the scattered and de-tribalised Caribs of today, the most important group, from the point of view of the research worker, is to be found in the North Western District of British Guiana on the Barama River. They are generally known as the 'Barama River Caribs'.

In addition to these there is a group of four tribes living to the south of the Barama River, on the borderlands of British Guiana, Venezuela and Brazil. All four are undoubtedly of Carib stock and speak dialects of the Carib language. The linguistic variations between the tribes are slighter than the variations between any one of them and the Caribs proper, while, in mode of life, behaviour and beliefs, there is likewise a great similarity and sometimes complete identity. These tribes are known as the Arecuna, Patamona, Macusi and Akawaio and they may legitimately be included in one group and referred to as the 'Carib-speaking Group of Tribes'.^b This Carib-speaking group, together with the Barama River Caribs, make up the 'Carib tribes' which are the subject of this article.

The many characteristics which the Carib tribes have in common make the research done in one tribe applicable, to a greater or lesser degree, to the other tribes individually and to the Carib peoples as a whole. For this reason, although most of the informa-

^a From June 1951—July 1952 I was engaged in social anthropological research among the Akawaio—a tribe of aboriginal Indians in the interior of British Guiana, South America. I owe thanks to a number of kind people who took an interest in the research. In particular, I acknowledge with gratitude the generous financial assistance which I received from the Colonial Development and Welfare Research Fund and from the American Association of University Women,—assistance which made my research possible. I am also indebted to the London University Central Research Fund for providing a useful equipment allowance.

^b There are other Carib-speaking tribes in Venezuela (such as the Malong-gong at the headwaters of the Orinoco,) and in French Guiana. For the main purpose of this study reference is chiefly made to the four tribes mentioned above.

tion and argument presented here centres on my own research among the Akawaio, some reference is also made to information about the other tribes, where there is direct relevance and where the information does not concern merely local peculiarities.

Literature on the System of Beliefs of the Carib tribes.

The indigenous systems of belief of the Carib tribes apparently presented a difficult problem to those of the colonists and travellers in Guiana who interested themselves in the aboriginal tribes. For, in spite of the fact that there are numerous literary works dating from the 16th century to the present day, there is little useful information contained in the majority of them: their authors either contented themselves with a few doubtful generalizations or ignored the subject altogether. Only the *Shaman* activities and the doings of a few evil spirits seem to have attracted general interest and comment. These, it seems, were considered to be the total sum of religious beliefs—or superstitions—of the Indians. Until about the middle of the 19th century there were no attempts whatever to make a systematic investigation of beliefs and practices relating to the existence of a supreme spirit, ultimate power or first cause, or to those concepts which are generally included in a system of beliefs, such as creation, the nature and destiny of the human soul, the spiritual hierarchy, and so forth. As regards the Akawaio, the inaccessibility of their mountainous homeland, far from the coast and the main river highways into the interior, meant that contact between them and the colonists was comparatively rare and literary accounts are therefore correspondingly sparse and unsatisfactory, even up to to-day.

Taking the literature as a whole on the Carib tribes, there are three distinct theories about the nature of the indigenous religious beliefs and the chief authorities are divided according to their expression of them.

1. There are, in the earliest literature, references to sun worship and sun spirits. Thus, Sir Walter Raleigh (8, p. 107) at the conclusion of the account of his famous expedition up the Orinoco to the Caroni River, in search of El Dorado and the Golden City of Manoa, wrote in 1595—"Now that it hath pleased God to send vs safe to our ships it is time to leaue Guiana to the Sunne, whom they worship, . . ." Walter Roth (9, p. 118) refers to various assertions made by early missionaries that the original Caribs and Carib-speaking tribes of the Orinoco worshipped the sun or considered the sun as the supreme being and first cause.

2. Later authorities report the existence of a belief in a supreme

being in the sky, among Carib, Carib-speaking and other Indian tribes alike, in Guiana. Thus Bolingbroke (1 p. 103) wrote, "The natives of Guyana believe in one God who is the cause of all the good which occurs in the world...." More specifically, various authorities name the title given by each tribe to this supreme being. Brett, perhaps the best known of the Anglican missionaries in British Guiana in the 19th century, has written about the Caribs then living on the Pomeroon River and the Manawarin, stating that, like the Indians of every American race he has known they believed in the existence of a Great and Good Spirit, the Creator and Upholder of the Universe. Like the Orinoco Caribs, they call him "*Tamoshi Kabo-tano*", "The Ancient One of Heaven", though in their heathen state, they paid Him no worship, considering themselves as beneath His notice, (2, p. 103) Brett also maintains (3, p. 59) that the name for the supreme being of the Akawaio is *Makonaima*—a name which Richard Schomburgk (10, pp. 177 and 253) considered was the Macusi and Arecuna name for God. Im Thurn (6, p. 378) gives a complete list of the names, in all the languages of Guiana, supposed to be the names of a supreme being, great spirit or God.

3. Im Thurn, however, belongs to the third group of authorities, for in analysing the list of names given for the supreme being he comes to the conclusion that they are mostly compounded to mean either 'Dweller in the Sky', 'Maker of the Indians' or 'Father', and he concludes that "these supposed gods are probably but the traditional ancestors of each tribe." (6, p. 378) Roth (9, p. 117) supports this conclusion and argues that careful investigation of the evidence has forced him to the conclusion that, originally the Indians had no terms expressive of the conception of a supreme being, and that such terms as they now possess have been framed to suit civilised, especially missionary, requirements. On the other hand, traditions of certain tribal heroes have been unconsciously assumed as indicative of the existence among the natives of the knowledge of a God.

The most recent scholar to investigate a Carib tribe systematically is Gillin who went to the Barama River Caribs in 1932. He denies that the present day British Guiana Carib name for God is *Tamoshi Kabo-tano*, 'Old Man-Sky' (Kabu-the Sun), stated by Roth to be the Carib make-shift name to express Christian concepts. "Nor", Gillin maintains, "do the Barama River Caribs worship, so far as could be discovered, the Sun or Moon, as is said to have been the custom among earlier Carib groups." (5, pp. 156-7). While Roth and Im Thurn left the problem of the exact beliefs of the Caribs open, being content to assert that there seemed to be no indigenous belief in a supreme spirit, Gillin, on the other hand, tends to revert to the standpoint of the second group and reopens the problem by stating

that i
name
of m
little
as it
head
they
He is
'fixed
had a
but a
he, li
concl
being
suspe
tian

actu
rema
my
ignor
auth
woul
an i
hum
blan
a se
com
had
ance
and

The

have
unt
trib
tury
the
(7,
call
wel
the
Sev

that in charge of the whole universe is a sort of literary deity, whose name is unknown. "This supreme being is so remote from the life of men that his characteristics are only indefinitely known and are little discussed. He is the supreme power, or creator, the first cause as it were. The priests do not pretend to be able to talk with this head spirit as they can with certain of the lesser supernatural beings; they have never seen him or had any personal dealings with him. He is called *Iopotari akuru* ('boss spirit') and it is insisted that he 'fixed everything' that he got the universe started, and even, it seems, had dealings with human beings in remote times . . . He is remote, but at the same time all-pervading. On the whole he is beneficent, but he, like other spirits, is given to phases of anger...." (5, pp. 155-6) Gillin concludes that although the idea of the Caribs regarding a supreme being are poorly developed and impersonal, there is little reason to suspect that their rudimentary notions are in any way due to Christian influence!

The problem of the existence of a supreme being and of the actual systems of belief among all the Carib tribes has therefore remained unsolved. It was perhaps fortunate that I embarked on my own field research among the Akawaio in a state of blissful ignorance. Having only had time to read Brett, of the many authorities available, I began with the happy assumption that there would be an indigenous belief in a supreme being of some sort, as being an inevitable part of the fabric of beliefs held by all, or nearly all, human societies. It came as a shock to face, first of all, a complete blank, and then to have thrust on me the task of making sense of a series of linguistic clues and of tracking down, sleuthlike, the component parts of a distinctive and unique pattern of beliefs which had thus unexpectedly presented itself. Nevertheless, initial ignorance and prejudice do perhaps add force to the following argument and final conclusions.

The 'Hallelujah religion' of the Akawaio.

It is obvious to-day, that the ancient practices of the Akawaio have been affected by Christian belief and ritual. This influence, until recently, came indirectly from neighbouring Christianized tribes and from visits to distant mission churches. Late 19th century explorers, passing through Patamona country to the south of the Akawaio, witnessed the first attempts to initiate Christian ritual, (7, pp. 5, 6, 88-90). Now, these form part of an established religion called 'Hallelujah' and non-mission Arecuna, Patamona and Macusi, as well as the Akawaio, regard the Hallelujah beliefs and practices as their own particular 'Indian' religion—being opposed to the Seventh Day Adventist, Roman Catholic and Anglican expositions

of Christianity. The Akawaio say that the Barama River Caribs have 'not got Hallelujah'. Such being the case, it is likely that lack of regular communication and a greater separation structurally between them and the tribes of the Carib-speaking group, in conjunction with earlier and more active mission work in their neighbourhood, are the causes of this difference. In other, indigenous, aspects of their systems of belief the Caribs and the Carib-speaking tribes have the closest relationship.

The Akawaio Hallelujah believe in God—or 'Papa', as they usually prefer to call Him. This is clearly an adoption from the English, as are many of the main words and concepts in Hallelujah. 'Papa' is a term which is also used to address a person who is in fact, the grandfather (*Taemogoli*), of the speaker, or who stands in a grandfather-type of relationship. The word implies considerable age in the person so addressed and also respect for him, so that it is used for any 'old man'. Similarly, the term 'Mama' has been adopted and is a term of address for grandmothers, old women and for European women of any age. It is also used in the term 'Mama Mary' (Mother Mary, Mother of Christ) in Hallelujah prayers.

If asked where Papa (God) is, the answer is *Kapo*—in the sky. Papa *Kapo* (grandfather or Old Man, in the Sky,) is therefore a title which is comparable to the Barama River Carib *Iopotari akuru* (literally, Master, or Head, Spirit) and the former Pomeroun Carib title of *Tamoshi Kabo-tano* (literally, Old Man, or Grandfather, in the Sky,) reported by Im Thurn and Brett. *Tamoshi* (5, p. 88) is the Carib term for Grandfather, *Taemogoli*, the Arecuna and Akawaio term. Nothing much is known about Papa. He is good, lives in the sky, he made the earth and he may give good things.

The Hallelujah good spirit in the sky is clearly taken from the Christian concept of God. The traditional mode of dancing, feasting and singing have been adapted to his worship and the indigenous *Shaman* cult and the beliefs and practices relating to a variety of spirits exist with it. It seems that only slight adjustments had to be made in the old system of beliefs and that the new Christian elements introduced, harmonized with the original pattern of thought to a remarkable degree.

Pre-Hallelujah Beliefs.

To study Hallelujah was comparatively simple but the enquiry into pre-Hallelujah beliefs immediately presented problems. Such an enquiry was not an unreasonable aim, for there are still children and grandchildren of the founder of Hallelujah alive today and these old people remember the sprints and dancing feats as they were ori-

ginally.^a It therefore came as a surprise in the course of the research to find that direct questions about the name and nature of the 'big spirit' of the past failed to produce an answer. More subtle and indirect modes of enquiry only introduced a number of red herrings. Names some people suggested, proved on further investigation to be those of bush spirits or legendary heroes. Other people even maintained, in an excess of Hallelujah zeal, that it must have been *maegoi* (sin). A tentative suggestion, on my part, that Papa in former days might have been called *Makonaima* was met with positive assertions that 'Akawaio had never heard of that'. Some eventually recalled that it was the name of a small stream on the Ayanganna plateau savannahs which lead to the southern regions of the Pakaraimas and to Patamona country. Later, some Arecuna Indians stated that *Makonaima* and his brother were Arecuna. They had once lived on earth as real people and had given mankind all things—food, knives, skills such as basket-making, etc. The assertions made by Brett and Im Thurn about the Akawaio name for the great spirit being *Makonaima* have therefore no foundation in fact, although among the Arecuna at least, he is a legendary hero and ancestor. The opinion of the most intelligent Akawaio was that there had been no big spirit whom they had worshipped. Before Papa there had been nothing. They also said that they did not know and had forgotten.

There was no alternative but to believe that they were speaking the truth and the obvious conclusion from this seemed to be that all the Akawaio had had originally was an assortment of disparate nature spirits and ghosts, which the *Shaman* contacted from time to time in his seances, allied with a tremendous enthusiasm for dancing and holding drunken spree.

Akwa, Akwalo and Akwalopo.

Meanwhile, as my knowledge of the language was extending, an unexpected solution to the problem presented itself. The information which is the key to the entire problem is contained in a sequence of three words, for the central pre-Hallelujah concepts are expressed in them. My investigation into this part of the Akawaio system of beliefs thus had largely to do with linguistic usage. The first word is *Akwa*: *Akwa* means 'Light', and sometimes more remotely, 'Life'. It is in the sky and it is the 'Sun's place'. It is

^a At the end of my research, after leaving Akawaio country, I met Mr. Forbes, resident at Kurupung. He had spent many years among the Akawaio and remembers the chief founder of the Hallelujah religion in the tribe—a man called Abel. He reckoned that Abel died about the year 1911, a very old man. The evidence of kinship charts etc., suggests the same—so that Hallelujah is comparatively modern.

not a sun spirit, or any other spirit, nor is it a person or thing, I was told, but just 'brightness'. In the Hallelujah chants of today *akwa* is sometimes used to mean Heaven and is 'God's place'. They say too, that God is *akwayau* (in *akwa*), but more frequently an Indianised pronunciation of the English word heaven is used. It is significant that when the chief founder of the Hallelujah religion among the Akawaio went 'to see God' in a dream, he told his followers afterwards that he never actually saw God but he did see brightness and 'a great light'. It is probable that this concept of *akwa* is closely related to the sun worship reported by Raleigh and by missionaries to exist among the Carib tribes.

The second word in the sequence is *Akwalo* which may be translated as meaning a spirit or soul of a living person, animal, or of anything which has vitality and life. It may also refer to a nature spirit; for example, *Peai 'me* (*Piai, 'ma:*) is a *wuk akawalo* (*wuk ækwa: lu:*) — a mountain spirit; *Emawale* (*i: ma:wa:li:*) is a *yuk akwalo* (*ækwa: lu:*) — a bush (i.e., forest,) spirit, etc.

'-Lo' is a suffix which may be added to a noun to give the meaning 'a sort of—' or, 'a kind of—'. For example, the word *pratalo* (*pratalu:*) or *platalo* ('l' and 'r' are interchangeable in the Carib dialects) is compounded of the Spanish word '*plata*' (silver) and '-lo'; it means literally, 'a kind of silver' or a 'kind of money' and it is the nearest the Hallelujah Akawaio can get to translating the biblical concept of 'heavenly treasure' into their own language. *Akwalo* literally means, therefore, 'a sort of life' or, 'a sort of light'. It is the living principle in earthly things. It is centred in the heart and is often called 'the heart spirit'. The Hallelujah talk of God *yagalo* (*yægashu:*) (or God *yakalo*) meaning 'God's heart spirit' or 'Holy Ghost'. (They also use a form of the English—'Oly Gho'.)

The third word is *Akwalopo*:- meaning a 'ghost', is believed to have no vitality in the Indian view. —*Lopo* (*lu: pa*) is a suffix meaning 'without' or 'deprived of'. (For example, *Nopolopo* is a widow, literally a 'deprived wife'.) *Akwalopo* is therefore, something deprived of life and light, and, being without the living principle, is a shade of the dead.^a

^a The Arecuna state that they use the same structural form in their language. W. E. Roth—(Animism and Folk-lore of the Guiana Indians, 30th Annual Report of the Bureau of American Ethnology, p. 152—153,) gives the mainland Caribs' term for a person's shadow as 'al-akaru', and the spirit resident in his head, his dream spirit, as 'aka' or 'akari'; when the latter leaves the body for the forest permanently it is known as 'aka-tomba'. Scattered pieces of information suggest that the Carib tribes, and even some of the non-Carib tribes of Guiana, have similar sequences and perhaps the system of belief of each tribe follows the Akawaio pattern. Additional investigation on the same lines might give profitable results and significant variations.

The concept of *akwalopo* does not enter into Hallelujah beliefs, but ghosts and spirits (*akwalo* and *akwalopo*) still play a large part in the complete system of beliefs of the Akawaio for Hallelujah has not eclipsed them. It is the *Shaman* who contacts them, asks for their help or fights them spiritually when they are thought to be the cause of illness and death—all of which he does in his spirit seances. *Akwa*, however, which enters into Hallelujah concepts as being 'God's place', does not enter into the *Shaman's* activities at all. *The Shamen* state that when their spirits roam they go around the rivers, mountains and forests and all about the place, summoning the other spirits and ghosts to the side of the sick people, but their spirits cannot go high enough into the sky to fetch down Papa and the other Hallelujah heavenly spirits. When asked whether *akwa* came down, either to-day or in the time of their fathers they replied that 'this can't be'. There appears to be a separation, conceived to exist between the Hallelujah spirits in the regions above and the spirits and ghosts nearby and on the earth below. In the same way in the past *akwa* was not part of the *Shaman's* activities but was a remote principle existing in the upper regions, where God is today. Both *akwa* and God have a certain relationship with man and earthly things but they are remote. The nature of the old and the new beliefs meant that an easy expansion of the old was possible and an untroubled adoption of new Christian beliefs was practical. To-day, we can see the old existing happily alongside the new in the life of the people.

Akwa was not worshipped in pre-Hallelujah times, and it is easy to see why not, simply by remembering the basic meanings of the three words, *akwa*, *akwalo* and *akwalopo*. *Akwa* is light, being considered by the Akawaio as the source of life. It cannot be influenced in any way for it is not personified life but an abstract principle of it. How could there be a 'Life Spirit'—an *Akwa Akwalo*? for that would mean literally, 'a life sort of life', or, 'a light sort of light', which is a contradiction in the Akawaio language and in their conceptions of thought. It follows from this that both the Hallelujah and the mission-taught Akawaio have missed the most important aspect of Christianity and in doing so are, strictly speaking, contradicting themselves by their own words. They speak of God as a 'Great Spirit'—*Ekaba Akwalo* (*ekeibei ækwa:lu:*)—but this is only 'a big sort of life'. In true Christian thought God is Life itself, and symbolically, through Christ, the 'Light' of the world. In this respect, *akwa* is a closer description of our concept of God than *akwalo*, but the great obstacle is in its abstraction, for Christianity demands a personification which is lacking in the pre-Hallelujah system of beliefs. So, in terms of the traditional meanings of these

words in the Akawaio language at least, it is difficult to see how Christian faith can adequately be expressed, for the language is formed to state different concepts.

The beliefs of the Akawaio can only be investigated through the language of the people and by noting what they actually say they believe in, for there are no rituals, no particular types of behaviour required and no worship associated with the pre-Hallelujah beliefs. It is an 'intellectual' system of thought contained in the oral traditions of the tribe and so embedded in the language and ideals of the community as to be unconsciously expressed for the most part. Hence it is almost impossible for the Akawaio to express these underlying concepts to a research worker for even if they knew sufficient English words to try they would not realize the European logic and its significant differences from their own indigenous pattern. This explains why the system of beliefs of the Akawaio—and perhaps of all the Carib tribes—has been a difficult problem for so long. It also explains why former writers, accustomed to think in terms of their own system of beliefs and without having the discipline of learning in detail one of the Carib languages, became victims of their own pre-conceptions and insisted on the existence of a supreme being. The missionaries in fact, deified Indian beliefs, thereby changing them completely and distorting their original character.

The Concept of the Origin and Destiny of the Soul.

As they rightly said, the pre-Hallelujah Akawaio did not believe in a great spirit, but they believed in an abstract principle of life and light from which is derived all forms of vitality. Besides the linguistic usage in which this belief is embedded there is also certain other evidence which supports the conclusions already reached and carries the investigation into Akawaio beliefs deeper.

There is evidence for a pre-Hallelujah belief that, at death, the vitality of a person, the soul or spirit (*akwalo*) goes back to the sky, to its source, while the residue, the shade deprived of life (*akwalopo*), remains to haunt the forest, mountains and villages, to be a likely source of misfortune and illness in the living. That this belief existed is strongly suggested in two different ways, although in neither case is there complete certainty.

a. The Hallelujah Akawaio to-day state specifically that they believe that after death they 'go to the sky and live good there'. They maintain further that the *akwalo* is the 'good part' of man and it is 'God's spirit' for the *akwalo* goes to heaven and joins God at death, thus going *akwayau* — into *akwa*, which is God's place. The most sophisticated sometimes describe the *akwalo* as the 'Angel spirit'. The

akwalopo, they say, is the part of a person which is bad and it wanders around after death and goes to *Emawale* (the forest spirit,) to the bush and to the mountains. It is also thought of as living in the house it lived in when alive. The *Shaman* may summon it but, if seen ordinarily, the *akwalopo* causes sickness and death. The *akwalopo* is not always bad in its effects but it is unpredictable and potentially bad. Unfortunately this cannot be taken as a complete statement of the indigenous pre-Hallelujah beliefs for the Akawaio today are, in some cases, greatly concerned about the problems of salvation after death. In particular it may be assumed that those aspects which the Seventh Day Adventists^a have taught relating to judgement day and to the end of the world must have had some effect on present day thought, apart from the indirect Christian influence which is contained in Hallelujah beliefs. On the other hand, Indians who have listened to the accounts of the material delights which may be found in heaven have remarked 'Indians don't think like that'!

The literature on the subject gives but little help. Roth, considering the Indians generally, states that the idea of a future existence directly dependent on present conduct is very probably a borrowed one (9, p. 162). Richard Schomburgk writes about the Arcuna:—"They refer the good and the bad to the same place after death and have the conviction that all the spirits of the dead haste to a spot where they will find all they wish and their friends gone before. When told that the good and the bad going together might not be satisfactory they reply: 'We know nothing else, we have heard from our forefathers that all spirits get there.'" (10, p. 253).

b. An indication of the beliefs concerning the future condition and destination of the spirit is sometimes given in the funeral rites of a people. Among the Akawaio there is a certain practice which, it seems, may reflect the belief that, at death the *akwalo* of a person returns to the sky. Again, the evidence is not conclusive, for although the practice is observable, the people say they do not know why they perform it.

All Akawaio graves are orientated from west to east, or, as the people say, they point towards the place where the sun rises. The body is brought to the grave in a hammock and lowered into it. Then,

^a The Seventh Day Adventists have missions up the Kamarang River—one of the main rivers in Akawaio country. They frequently send Indians from their missions to the 'pagan' Hallelujah villages to teach the inhabitants. It would seem, from the questions I would be asked after their visits, that the teaching these Indian missionaries gave was not at all clear—and that the missionaries themselves were in doubt about what their Adventist pastors had taught them. For example, I arrived at one of the most remote villages a few days after one of these travelling missionaries had left and was immediately asked by the Village Leader, 'What is Kismus (Christmas)? It is an evil spirit?'

the hammock is either withdrawn completely, or the strings cut at both ends leaving the major part to be buried with the corpse. The body is laid out flat on its back, the head to west and the feet pointing to the east. Either before the grave is filled in or immediately afterwards, a long pole is driven into the earth at the head of the grave so that, when the burial is complete, about 2½ feet of the pole projects above the ground. Usually, but not inevitably, the mourners split the top of the post and thrust into the fork a small flat piece of wood, about 8 inches long and roughly shaped to a point at one end. This looks like a pointer, for this second piece of wood, forming the cross bar, is not at right angles to the grave as a cross would be, but points down the length of the grave towards the east. Such pointing devices I have frequently seen used by Indians traveling in the forest and on the savannah where there is a choice of trails, and, also, along the rivers where there are tributaries or island channels to confuse the route taken by an advance party. In the forest the usual practice is to nick the bark of a tree which is on the right trail and to place in it a small stick which has been shaped at one end and so points down the right path. On the savannahs it takes the form of a long piece of stick thrust into the earth and split at the top so that the pointer can be thrust between the forks. This is an exact, though more roughly made, replica of the type used on the grave. Along the river the Indian either pushes a stick with a pointed bar into the mud near the bank or inserts a pointer into a fork made in one of the projecting branches of a fallen tree. In all cases, the component parts are the same and in all cases this is an apparatus which is simply used as a sign-post.

In connection with the 'grave sign post' the Akawaio can say little. Some maintain that the *akwalo* leaves the body as soon as a person is dead, as may be seen from the fact that the limbs and all the parts of the body are white and no longer living and vitality has fled. The *akwalo* leaves first and joins God. The *akwalopo* goes away later. The most authoritative *Shaman* of the tribe stated that the spirit (*akwalo*) comes up from the grave and climbs up by means of the pole and stays at its head for a time. He could not say how long the spirit stayed there or where it went afterwards. Most people said that they did not know. The fact that there is the belief that the *akwalo* leaves the body sometime shortly after death is perhaps best illustrated from an incident at a newly established Anglican mission up the Mazaruni. The family of a dead child there made a coffin from boards in imitation of Christian practice. The Anglican teacher asked why they did not nail down the lid when everything was ready for the burial. The reply was that this would not do at

all for the child would then die! The mourners felt that the life in the child, contained in its *akwalo*, would not be able to escape from a tightly closed box as it would do if there was just the customary piece of bark over the body, the earth, and the pole to climb up. Although there was the innovation of the coffin the grave was given the customary sign-post.

In spite of extensive enquiry no one could give any coherent reason why graves should be orientated towards the sun-rise. This is now "just the custom" and everyone has forgotten the original reason. They even doubt whether there had been a reason. People did say, however, that some Akawaio bury the dead early in the morning and just as the sunlight strikes the earth. They also insisted that everyone did this years ago but that to-day burials may occur somewhat later in the morning.

Another interesting piece of evidence, which links up with this problem concerning the grave sign-post, is contained in certain documents of the Supreme Court Registry in Georgetown, the capital of British Guiana. (11) A white man named Harry Bell was killed by an Indian in November or December 1928 when he was travelling through Akawaio country. In a moment of panic or temper he had, apparently, killed one of his Akawaio carriers and in turn he was himself shot by the avenging brother of the dead man. This incident eventually came to the notice of the government authorities and some 3—4 months later there was a police expedition from the lower Mazaruni area to the mountain plateau country of the Akawaio. The graves of the two murdered men were inspected and the Indians who had been involved in the killing were arrested or brought to Georgetown as witnesses in the subsequent trial. The case was tried in the Supreme Court (Criminal Jurisdiction) in June 1929. The details do not concern us here but the policemen who had inspected the two graves at the place of the killing made a significant statement. They said that they were about 3 feet apart and that one had a roughly made wooden cross. One was north to south, the other east to west—a "cross" was on the grave lying east to west. The grave orientated east to west and with a rough cross was that of the murdered Indian. It is now too late perhaps, to obtain the reasons for the difference in orientation of the graves from the people who were concerned in the murders and in the subsequent burials. Nevertheless, we may at least conclude that it would be in harmony with the general Akawaio pattern of beliefs if both the sign-post pointing to the east and the orientation of the grave to the east were deliberately withheld at the burial of a foreign murderer—as the Akawaio must have regarded Bell. While the dead Indian's *akwalo*

was speeded on its way towards *akwa* the sun's place, the white man's spirit was hindered by a different orientation.

I cannot pretend to give definite proof, however, that the belief was held in pre-Hallelujah times that the sign-post on the grave is placed there to guide the released spirit on its path towards the sunrise where *akwa* is. The fact that burials occurred at the moment the sun's rays struck the earth in the morning would suggest strongly that this is the correct interpretation and it certainly links up with the belief that the *akwalo* is the vital principle of life in a person and that, at death, it goes back to the great source of vitality, to Life and Light itself. At the very end of my research I tried out the theory on several of the tribe. They were interested and they were amused, but they did not know. The evidence is significant therefore, but the conclusion it seems to justify is not proven.

Although the destiny of the soul may be a matter of doubt the Akawaio seem more certain about their tribal origins, in some respects at least. The term Akawaio is the name applied to this particular tribe by all the other Indian tribes of Guiana. The Akawaio use the term *Kapong* (*kapon*) for themselves—a word which is frequently used in a singular or a plural context, although if numbers are stressed the general plural ending—*amok* (*æmʊk*) is added to make *Kapong yamok* (*kapon yæmʊk*). *Kapong*, like many other Akawaio words, is a compound. It is made up of *Kak*, (*kak*) meaning 'sky' and *pong* (*pon*) also pronounced *bong*, *dong* or *gong* according to the requirements of elision, which is the ending used to denote 'person'. *Kakpong* is thus *Kapong*, so that literally, every Akawaio calls him or herself 'Sky Person' and the whole tribe consists of 'Sky People'. Incidentally, although they are *Kapong* par excellence, they consider the other Carib-speaking tribes to be *Kapong* too and they only use the names Arecuna, Patamona and Macusi when there is any particular need for special differentiation. They are doubtful about whether the Barama River Caribs can be included in the term and there was some contradiction in this when I investigated the matter. The criterion is that of language. All tribes who speak a similar language to their own and whom they know to do so, they call *Kapong*; in the case of the Barama River Caribs hardly any Akawaio have met them so they are not sure. The structural implications here, in connection with the system of beliefs are obvious.

Among the Carib tribes—and also among some of the other tribes of Guiana, there is a folk-story which seems a striking explanation and symbolic support of their beliefs concerning the origin and destiny of the soul. The story is given with little variation, by several different authorities (4, p. 103). It tells how originally the Caribs

arrive
sky w
cloud
benea
Carib
the V
anim
upper
was r
them
'sky
up a
mote
coun
is ce

lief t
there
akwa
when
Akaw
and
tors
their

three
of be
the n
of be
denc
that
or in
stage
sent
tain
tian
vital
of lif
with
life i
view
sun.

arrived in Guiana through a hole in the sky from a place above the sky which was their homeland. The 'sky people' finding a hole in the clouds one day let down a long bush rope to the earth that they saw beneath them and climbed down far below. Brett says that the Caribs maintain that they came down to cleanse the earth, whereas the Waraus (non-Carib coastal tribe,) came down to hunt the large animals they saw through the hole—there being only birds in the upper regions. Whatever the reason, disaster came once the earth was reached for in the case of the Caribs the clouds receded and left them stranded on earth, and in the case of the Waraus a large, fat, 'sky lady' got stuck in the hole and prevented people from climbing up again! As Im Thurn remarked, the conception that their remote ancestors came into their present homes from some other country which is sometimes said to be skyland is a conception "which is certainly present in all Indian minds."

The evidence presented is briefly this:- There is to-day the belief that the spirit (*akwalo*) goes to *akwa*, God's place, to join God; there is a pointing device on the graves which suggests that the *akwalo* is directed by this on a path to the sun's place, in the east, where light appears each morning—and therefore to *akwa*. The Akawaio call themselves *Kapong* which literally means Sky People, and the Carib tribes have a folk-story which relates that their ancestors originally came down from a homeland in or above the sky to their home on earth.

If we add this evidence to that contained in the sequence of the three key words of *akwa*, *akwalo* and *akwalopo*, we can see a pattern of beliefs which sets forth a logical, consistent and intellectual view of the main problems of existence with which all societies and all systems of belief are concerned. Im Thurn (6, p. 378) considered, on the evidence concerning spirits and spiritual things that he had available, that "We shall find that the attitude of the Guiana Indians is very low or in other words, that religion among them is in one of its very earliest stages." I cannot agree with this conclusion; on the evidence presented here, their pattern of thought is an attractive one and certainly not without truth either from the scientific or the Christian points of view; for, with its suggestion that all forms of earthly vitality are derived from and return to that great abstract principle of life which exists in the sky, it approaches Christian teaching; while, with the derivation of this earthly vitality and the general location of life in the light which is the sun's place, it approaches the scientific view that life on earth is dependent on light and energy from the sun.

By this combination the Akwaio explain the 'spiritual universe',

the concept of the soul in man and all living things, the evils of death, the shades which are left and the causes of sickness and misfortune. All these universal problems they explain for themselves in their own unique interpretation of the nature of life. Fundamentally, it is not so very far removed from some of our own European modes of thought for surely a similar philosophy inspired those lines in 'Adonais', where Shelley wrote:-

"Dust to the dust! but the pure spirit shall flow
Back to the burning fountain whence it came,
A portion of the Eternal, which must glow
Through time and change, unquenchably the same,..."

REFERENCES

- (1) BOLINGBROKE, HENRY *A Voyage to the Demerary* (1799-1806) The Guiana Edition, No. 1.
- (2) BRETT, REV. W. H. *Mission Work in Guiana*.
- (3) BRETT, REV. W. H. *The Indian Tribes of Guiana*.
- (4) BRETT, REV. W. H. *Legends and Myths of Guiana*.
- (5) GILLIN, J. *The Barama River Caribs of British Guiana*. Peabody Museum Papers, Vol. XIV. No. 2.
- (6) IM THURN, E. F. (1881) *On the Animism of the Indians of British Guiana* J.R.A.I. Nov. 8th.
- (7) IM THURN, E. F. *Thoughts, Talks and Tramps*. Introd. XVIII.
- (8) RALEIGH, SIR WALTER (1595) *The Discoverie of the Large, Rich and Bewtiful Empire of Gviana* Hakluyt Society Publication.
- (9) ROTH, W. E. *An Enquiry into the Animism and Folk-Lore of the Guiana Indians*. 30th Annual Report of the Bureau of American Ethnology.
- (10) SCHOMBURGK, RICHARD *Travels in British Guiana 1840-1844* Vol. II. (Translated from the German by W. E. Roth.)
- (11) Supreme Court Registry, Georgetown, British Guiana; documents relating to the King v. Bagot (accused of the murder of Harry Bell in Nov. or Dec. 1928.)

ath,
une.
own
not
ught
here

..

uliana

useum

uliana

and

uliana

. II.

ng to
1928.)